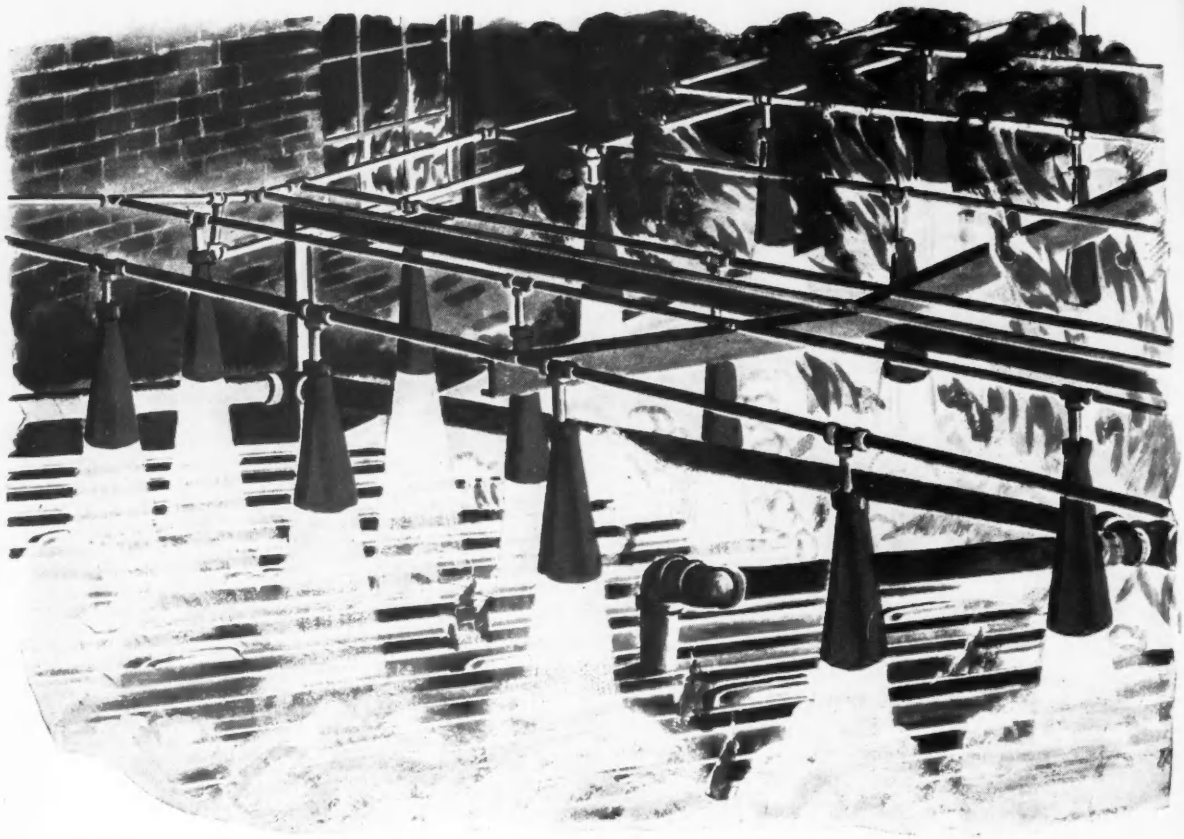
Volunteer Firemen

MAY 1945

NATIONAL FIRE PROTECTION ASSOCIATION
INTERNATIONAL
60 Batterymarch Street Boston 10, Massachusetts

VOLUME 12, NUMBER 9 COPYRIGHT 1945 NATIONAL FIRE PROTECTION ASSOCIATION PRINTED IN U. S. A.



BURNING TIME LESS THAN 20 SECONDS— FOR THE TOUGHEST FIRES

Yes, Kidde built-in systems choke off flammable liquid fires (Class B) —or electrical equipment fires (Class C)—in *less than twenty seconds.* When *automatic* systems are used, fires are often suffocated before nearby workers realize a blaze has even *started!*

Ordinary water-type extinguishers cannot stop these tough fires. But they can be quickly smothered under clouds of swift carbon dioxide gas—dry, inert, odorless and non-toxic. And that's the Kidde method! It leaves no after-fire mess, no contamination of mixes or fluids, no damage to electrical equipment. That's why the Kidde system is recognized as one of the speediest, cleanest, safest means of fire extinguishing in use today.

Check the accompanying list of typical industrial fire hazard areas—for safety's sake. If there is one of these danger spots in your plant, call in a Kidde representative — he'll be glad to discuss your fire protection problems.

Kidde Kills Tough Fires

PROCESS ROOMS
OVENS
SPREADERS
MOTORS
STORAGE ROOMS
MIXERS
COATERS
TRANSFORMERS
DIP TANKS
AGITATORS
WASHING TRAYS
CONTROL PANELS

K Kidde

The word "Kidde" and the Kidde seal are trade-marks of Walter Kidde & Company, Inc.

Walter Kidde & Company, Inc. · 140 Cedar Street · New York 6, N. Y.

THIS ADVERTISEMENT IS ONE OF A SERIES APPEARING CURRENTLY IN INDUSTRIAL PUBLICATIONS

Improved 3-Purpose Fire-Hose Nozzle by GRINNELL

FLAMEBUSTER

"KILLS OIL FIRES FAST"

FLAMEBUSTER permits application of water in the form best suited for quick control, according to the nature of the fire —

1. **Low Velocity Spray** . . . for extinguishing stubborn fires in light, flammable liquids. Projected at a wide angle by the unique Grinnell spray tip on a 4′ or 10′ applicator. The spreading cone of evenly distributed, fine spray, applied directly over blaze, puts out flames quickly, with minimum water consumption.
2. **High Velocity Spray** . . . for general fire fighting and for extinguishing fires in heavier oils by emulsifying the blazing oil with a driving spray of water, rendering it incapable of burning. Protects fireman approaching blaze.
3. **Solid Stream** . . . for rooting out deep seated fires and for projecting a volume of water a considerable distance. For fighting fires in electrical apparatus, a long-range, non-conducting spray is substituted for the solid stream.

Complete information is available without obligation. Write to Grinnell Company, Inc., Executive Offices, Providence 1, R. I. Branch offices in principal cities.

GRINNELL

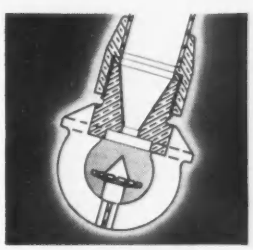
FOUNDED 1850

FLAMEBUSTER'S ADVANCED DESIGN

prevents clogging - simplifies maintenance

SINGLE LARGE ORIFICE IN LOW VELOCITY TIP

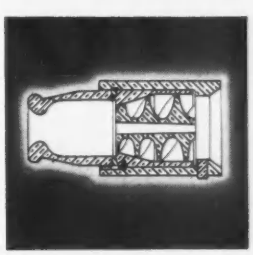
on end of the applicator breaks down the free flowing stream into finely divided spray without the use of small orifices – eliminates clogging.



★

SIMPLIFIED SCROLL DESIGN IN HIGH VELOCITY TIP

Generates high velocity spray by a proved "whirl" principle that eliminates the disadvantages of small orifices.



★

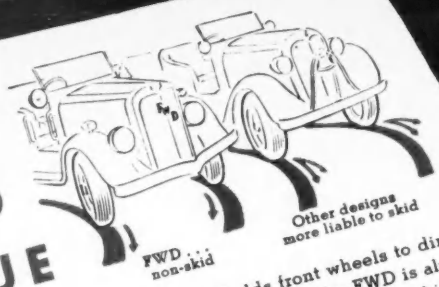
EASY DISASSEMBLY

Only tool required is a screw driver. Unique corrosion-proof rubber seat for ball valve is leak-proof and permits easy operation of valve at all working pressures.

One of New York City's fleet of FWD 85-foot aerial ladder trucks. Special FWD tractor provides for quick acceleration, high sustained speeds and extra safety in steering control.

FWDs ALWAYS "SURE-FOOTED"

NO SLIP NO SKID NO SLUE



Four Wheel Drive powered steering traction holds front wheels to direction of turns. The propelling force to the front axle of the FWD is always in the same direction in which the truck is steered, minimizing skidding and giving more positive steering control. Skidding tests conducted on ice show 50% less skidding due to powered front axle alone.

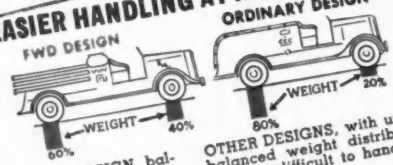
WRITE FOR LITERATURE

THE FOUR WHEEL DRIVE AUTO COMPANY, Clintonville, Wis.

Canadian Factory: KITCHENER, ONTARIO

FWDs Go Where Other Vehicles Fail
NO ROADS TOO TOUGH OR STEEP FOR FWDs

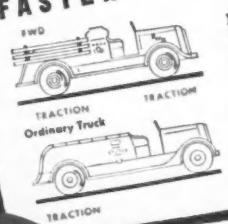
EASIER HANDLING AT HIGH SPEEDS



FWD DESIGN balances weight on all four wheels . . . assures easy handling at any speed.

OTHER DESIGNS, with unbalanced weight distribution are difficult to handle at high speeds.

FASTER GET-AWAY



FWD power on all four wheels gets a four-way grip on any road and assures faster get-away.

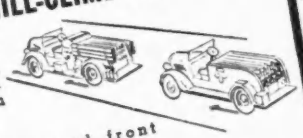
Other designs, lacking drive on front wheels, lose time in get-away.

QUICK, POSITIVE, SAFE EMERGENCY STOPS

FWDs have two separate and independent 4-wheel braking systems, with brake drums on each wheel. Combined with properly balanced weight distribution, these provide the most effective braking possible.

GREATER HILL-CLIMBING ABILITY

FWD's front wheel pulling power increases hill-climbing ability. Reserve traction in all 4 wheels.



Non-powered front wheels "block" progress of truck on inclines, reducing steep hill-climbing ability.

FWD

FOUR-WHEEL-DRIVE *Fire Apparatus*

GETS TO FIRES *FASTER* and SAFER!

Volunteer Firemen

Volume 12 Number 5

Published by the National Fire Protection Association, a voluntary non-profit organization, 60 Batterymarch St., Boston 10, Mass.

PERCY BUGBEE *General Manager*
ROBERT S. MOULTON *Technical Secretary*
HORATIO BOND *Chief Engineer*
WARREN Y. KIMBALL *Editor*
CHARLES S. MORGAN *Advertising Manager*
ANNE BAILEY *Associate Editor*

CONTENTS

For May, 1945

Minnesota Drill Team Competitions, by Leonard C. Lund 6
Let's Get Acquainted . . . 8
Junior Fire Departments . . 8
What Pay Do the Boys Get? (*Cont.*) 9
Egyptian Theatre Blaze, Scottsbluff, Nebraska . . 11
More from the Italian Fire Front, by Capt. H. W. Backman 12
Nebraska Fire School . . . 13
Rhode Island Uses Planes to Direct Forest Fire Fighting 13
Women Wage War on Fire, by Dorothy Downs 14
Topeka Township Fire Department, by Chief H. P. Little . 16
Ontario Fire Marshal Reports on British Fire Service . . 18
Rekindlings from Hot Topics . 18
Membership 22
"Serving for Us" 23
Volunteer Firemen Rate Gasoline 23
Manufacturers' Announcements 24

THE VOLUNTEER FIREMAN

THE cover picture shows the fire that destroyed the Washington Heights grade school in Lemoyne, Pa., March 5th. Ninety-three pupils were attending classes when a teacher noticed unusual heat in a vent duct opening and instructed her pupils to leave the building, although no flames or smoke were noticeable at that time. An alarm was given promptly. At that time flames were confined to the loft under the roof but before school supplies or equipment could be removed the second floor ceiling caved in filling the upper floor with flames. Fifteen minutes after the alarm sounded the roof caved in. Five outside fire companies were called to assist in battling the flames. These were the companies from Camp Hill, New Cumberland, Wormleysburg and the Paxton and Washington companies from Harrisburg.

There is hardly a volunteer fire department in the United States (except for industrial brigades) that cannot anticipate the possibility of being called to a big school fire at some future occasion. As has been pointed out on many occasions most schools, including some of the most modern, are built to burn. While good fire drill practices, and the fact that many school fires occur when the buildings are unoccupied, may reduce the life hazard, this recent fire at Lemoyne shows how fast such fires can spread. The teachers at the Washington Heights school are to be commended for dismissing their classes so quickly at the first suspicion of fire, otherwise loss of life might have resulted.

It is no easy job to fight a school fire successfully. Ventilating ducts are often arranged in such a manner as to carry fire throughout the building in an incredibly short space of time. Schools often set back from the street making it necessary to extend rather long hose lines by hand and making the use of pumpers essential to get adequate pressures. Schools also provide a larger fire area than the ordinary store or dwelling and thus ordinary hand hose streams may prove rather impotent once fire fighters have been driven from inside the building. Heavy streams may be desirable providing they can be set up quickly and also providing that adequate water supplies are available. All too often school buildings are located in residential areas served by small water mains that are incapable of supplying large fire flows.

Each fire department should know just how much water is likely to be available near each school in their district so that when a fire does start, the hose and pumper layouts can take advantage of every available drop of water as needed.

IS a false alarm of fire just a simple prank which merely should be overlooked with kindly words of admonition? "Not so" might reply the fire fighters of 421 American cities having more than 20,000 population. These fire crews last year raced through the streets to no less than 48,026 malicious false alarms — risking their lives in the belief that they were hurrying to the aid of citizens in danger from fire.

In most cities, each false alarm would, on the average, call out perhaps no less than 5 or 6 pieces of apparatus. In the larger cities a first alarm call may bring more than a dozen vehicles including chiefs' cars and police units. Most American fire equipment is relatively over-aged due to the war and fire departments have none too many men available to handle the legitimate calls that are often received while apparatus is out to false alarms. If we consider that in answering the 48,026 false alarms, no less than 250,000 runs were made by fire companies, we see that the problem is of major importance to law enforcement officials.

Gasoline and truck tires were consumed in these wild goose chases. In New York City alone, something over 10,000 malicious false alarms were recorded, accounting for 21.2% of the city's fire calls. It is interesting that seacoast cities had a somewhat higher false alarm ratio than other communities with a less transient type of population.

Canada too, had a false alarm problem. Thirty-seven Dominion cities reported 6,661 false alarms amounting to 15.4% of their total calls.

•

THE United States fire losses for the month of March, 1945, totaled $40,876,000, according to the National Board of Fire Underwriters. This total was 5 per cent more than the March, 1944, total of $39,084,000, but 1 per cent less than February of this year.

The twelve months' losses, ending in March of this year, were $434,800,000, as compared with $396,049,000 for the same period ending with March, 1944.

The *N. Y. Journal of Commerce* recorded 212 fires occuring in the United States and Canada, in March, each of which caused damage extimated at $10,000 or more.

Canadian fire losses for March totaled $2,745,000.

•

Don't Let Tokyo Cool Off!
Bonds Buy Fire Bombs!

Minnesota Drill Team Competitions

By Leonard C. Lund, State Fire Marshal

A GROWING awareness of the laxity in training that existed in some volunteer fire departments, and the fact that the present emergency had caused serious depletion in the ranks of experienced volunteer fire fighters, made it necessary to encourage interest in firemen's training programs. To stimulate this interest, the idea of fire fighting evolution contests to be conducted in connection with the regional fire schools of Minnesota, with runoffs at the annual Northwest Fire School was advanced by the Fire Marshal Division of the State of Minnesota.

For training purposes there are ten regional districts in Minnesota with each region conducting an annual school. In order to quicken interest in the schools, and at the same time inaugurate a more comprehensive training program, it was decided to make evolution contests one of the main features.

In 1943, the first set of evolutions was drawn up by the State Fire Marshal Department. These were very simple, as can be seen from the reports on the next page. As early in the year as possible, a copy was mailed to every fire department in Minnesota, with instructions for regional contests. The object was to get the information to fire chiefs well in advance of the summer season when the schools are held. This gave the departments plenty of time to organize their drill teams and hold drill practices.

Throughout the state the volunteer firemen have accepted this program most enthusiastically. This is substantiated by the number of towns represented by fire drill teams. There have been as many as 15 towns competing at one regional school.

The winning team of each regional contest is then scheduled to compete in the finals the following year at the Northwest Fire School normally held each May. Thus ten contesting teams represent the volunteer firemen of Minnesota at the Northwest Fire School.

These evolutions are not just an entertainment feature, or something that cannot be used by the firemen as part of their work. The drills do not include circus stunts or tricks of any kind. They are "dyed-in-the-wool" firemen's training, embracing fundamental fire fighting principles.

The judges for these contests are picked at the Northwest Fire School from drillmasters chosen from departments not taking part in the competitive contest. The judges for regional contests are chosen from fire departments located in regions other than the one that is holding the contest. Prior to the beginning of each contest the captains of the competing teams are brought into a huddle with the judges and all rules and regulations are gone over. Questions are asked and answered. This is the only time the captains can ask questions.

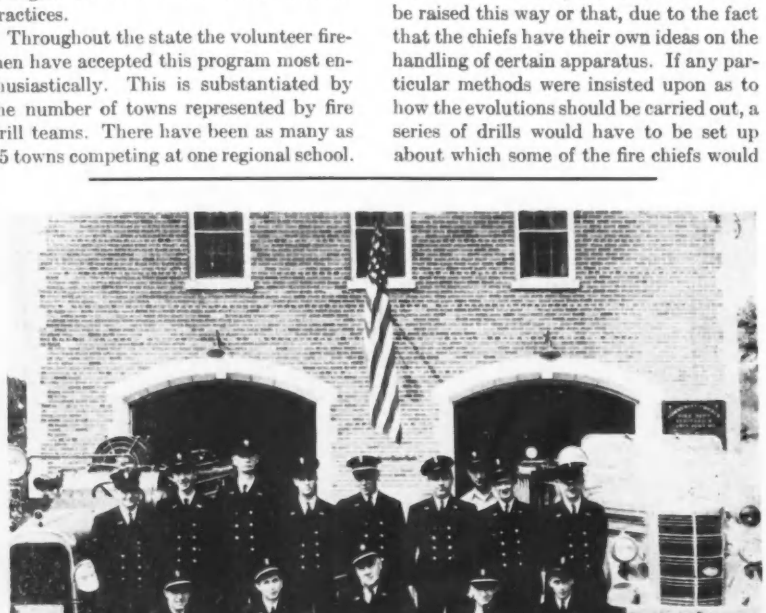
One thing scrupulously guarded against, is never to advise the fire chiefs as to any specific manner by which to conduct their evolutions. They are not told how a line of hose must be laid, or that a ladder must be raised this way or that, due to the fact that the chiefs have their own ideas on the handling of certain apparatus. If any particular methods were insisted upon as to how the evolutions should be carried out, a series of drills would have to be set up about which some of the fire chiefs would differ and departments having equally good methods might be at a disadvantage. The avoidance of any such standard evolutions does away with controversy and discussion. The departments are permitted to conduct their evolutions as they would on the home fire ground.

Last year there were approximately five hundred firemen in attendance at the Northwest Fire School. Each town was enthusiastically backing a team in the contest. While it is to be understood that trick hookups were not the main object, it did not take long for the spectators to notice the varying degrees of efficiency displayed by the different teams and how quickly some of them executed the evolutions. First and foremost were speed and deftness in the execution of the particular evolutions. The entire contest was based on how quickly the evolutions could be conducted in a safe and workmanlike manner.

A new set of evolutions is about to be drawn up for 1945. The volunteer fire departments are chafing at the bit, so to speak, to receive them in order that they may commence their drill practices.

At the end of approximately ten years, it is felt that these evolutions can be the basis for a state-wide training manual for volunteer fire departments. In 1945, evolutions will include some hose layouts and ladder operations. For the last two years hose layouts have been the primary feature. For 1946 some pumper work may be introduced. This particular subject has been intentionally avoided, as many of the smaller towns, wishing to compete, have not had the necessary pumper equipment.

There has been no restriction on the number of teams taking part in the regional contests. Naturally the number of teams taking part at the Northwest Fire School will have to be kept down to the ten annual winners at the regional schools. A detailed description of the evolutions for the past two years is given on the next page.



Cabin John Park Volunteer Fire Department, Maryland. This member of the N.F.P.A. Volunteer Firemen's Section, operates as a strictly volunteer organization with no individuals receiving compensation. It is financed by a fire tax area and state contribution authorized by the Maryland Legislature, and there are no full-time paid firemen.

For fire apparatus, the department owns a 1944 Mack pumper, 500 g.p.m., with a 200-gallon booster tank; a 1931 Brockway pumper, 300 g.p.m., 80-gallon booster tank; and an American-La France pumper, 1924, 750 g.p.m., with a 300-gallon booster tank. The department's postwar plans include the purchase of replacements for the two older pieces of apparatus.

Once a week the men attend fire school drills. Their area of protection includes some 2,500 people, the U. S. Navy's David W. Taylor Model Basin, and a government housing project.

RESULTS OF CONTESTS AT NORTHWEST FIRE SCHOOL, MAY 15, 16, 17, 1944

8 Teams Participating	Starting Order	Performance Time — Seconds Evolution				Total Time	Performance Ratings
		I	II	III	IV		
Detroit Lakes	6	22.7	33.2	39.7	47.0	2 min. 22.6 sec.	First, $100 War Bond
Anoka (member N.F.P.A.)	5	30.7	39.4	47.4	45.9	2 min. 43.4 sec.	Second, $50 War Bond
Keewatin (member N.F.P.A.)	2	23.8	46.5	44.3	53.5	2 min. 48.1 sec.	Third, $25 War Bond
Lake City	1	37.3	37.6	51.4	42.9	2 min. 49.2 sec.	Fourth, Certificate of honorable mention
Pipestone	7	44.2	39.0	45.2	43.6	2 min. 52 sec.	Fifth
Sauk Centre	3	30.2	41.0	56.3	45.6	2 min. 53.1 sec.	Sixth
Cottonwood (member N.F.P.A.)	8	25.6	59.5	38.3	69.1	3 min. 12.5 sec.	Seventh
Waconia	4	43.5	45.0	51.0	55.6	3 min. 15.1 sec.	Eighth

Judges: Roy J. Langevin, District Chief, St. Paul Fire Department; Sanford Herberg, Engineer, Fire Underwriters Inspection Bureau, Minneapolis, Minn.; Battalion Chief George Lockhart, Superintendent of Instruction, Fire Department, Minneapolis, Minn.

1943 Regional Schools Finals at 1944 Northwest Fire School

WHO MAY TAKE PART — Only strictly volunteer firemen. Paid or partially paid firemen not included.
WHERE WILL FIRST CONTEST TAKE PLACE — At your own 1944 Regional Fire School.
AWARD TO WINNING TEAM — $25 War Bond
WHERE WILL FINAL CONTEST TAKE PLACE — The ten winning teams at the Regional Schools will then compete at the Northwest Fire School in May 1944.
FINAL AWARD — Due to present war conditions, we are unable to state the definite type of awards to be presented, whether cash or bonds, but the following is a schedule of the amounts involved: 1st, $100; 2nd, $50; 3rd, $25; 4th, honorable mention.
IS TRAINING NECESSARY — Absolutely. Complete set of four evolutions has been set up by the Fire Marshal Department and will be furnished to each Fire Chief interested in having his men take part in the contest.

In order to give all departments an equal opportunity to win the contest, the evolutions practiced by each department must be uniform, and your training must, of course, follow the evolutions set up by the Fire Marshal Department.

1. 2½-inch Hose Evolution (6 Men).

The hose truck will be set about 50 feet from the hydrant in the direction the hose line will be laid. Three men will be in position on the rear platform, one in the driver's seat, the captain of the company in the seat alongside the driver and one man will be in position on the running board alongside the captain.

Upon command of "go" by the captain, the company will remove 150 feet of 2½-inch hose, a designated nozzle and hydrant wrench from the truck and lay the line from the hydrant, turn on the hydrant and direct the stream at a designated point.

The time will be taken from the command of "go" until water shows at the nozzle. Penalties of 5 seconds will be invoked for each error or mistake made during the evolution. Some of the mistakes considered will be: dragging loose couplings on ground; dropping couplings or nozzle; leaky connections; unnecessary rough handling in general.

After completion of the evolution, close the shut-off valve on the nozzle; do not close the hydrant.

2. Replacement of Section of Hose with 2 Sections (6 Men).

The 150-foot line of 2½-inch hose is under pressure with hydrant open and shut-off nozzle closed as left at conclusion of No. 1. The truck is in same position also.

This evolution consists of replacing the middle or center section of hose which is assumed to be leaking or burst.

The 6 men will line up along a designated line about 10 feet from the truck and the evolution will commence upon the command of "go" by the captain of the company.

This evolution starts with 2 men directing the stream from the nozzle which they will open. The other 4 men proceed to replace the middle section, using a hose clamp for shutting off the water in the line while replacement is being made. The hose clamp will be taken from its proper place on the truck and the 2 new sections of hose obtained by disconnecting from the hose in the hose body of the truck.

Time will be taken from the command "go" until water again appears at the nozzle. The same mistakes will be considered as on No. 1, with the addition of improper use of hose clamp.

After completion of evolution, return equipment, hose, etc., to original position or places.

3. Attaching Two 1½-inch Lines from Wye (6 Men).

Two 100-foot lines of 1½-inch hose with nozzles will be stretched from a wye connection to the 2½-inch feeder hose.

The 150-foot line of 2½-inch hose is under pressure with hydrant open and shut-off nozzle closed as left at conclusion of No. 1 and 2. The truck is in the same position also.

This evolution consists of shutting off the 2½-inch line with hose clamp, replacing the nozzle with a wye (2½-inch female by 1½-inch male, gated, by 1½-inch male, gated) and attaching and stretching 2 separate lines of 1½-inch hose with nozzles and directing the 2 streams at points designated.

The 6 men will line up along a designated line about 10 feet from the truck and the evolution will commence upon the command "go" by the captain of the company.

Time will be taken from the command "go" until water shows at both nozzles.

The hose clamp and wye will be found in proper place on the truck. The two 100-foot lines of 1½-inch hose with nozzles attached will be in folded bundles on the ground near the truck.

Penalties will follow the same lines as with former evolutions.

After completion of the evolution, return equipment, hose, etc., to original position or places and leave the 150-foot 2½-inch line charged with 2½-inch nozzle shut-off.

4. Hose and Ladder Evolution (6 Men).

The 150-foot, 2½-inch hydrant line in No. 1, 2 and 3 will be used on and secured to a 24-foot extension ladder with nozzle directed through the second floor window of a building or drill tower. The 2½-inch hydrant line is under pressure with hydrant open and shut-off nozzle closed as left at conclusion of previous evolutions. The truck is set about 50 feet from building or tower.

The 6 men will be lined up along a designated line near the building and the evolution will start upon command of "go" from the captain of the company.

The 150-foot line will be shut off with hose clamp and drained. A 24-foot extension will be removed from the truck, carried, raised and set to the second floor window. The drained line with nozzle attached will be placed on the ladder with hose and nozzle secured, by hose straps from the truck, to the ladder rung in front of window in a position to play through the window into the building or drill tower. Make sure the nozzle is shut off. Charge line. Do not open shut-off on the nozzle as no stream will be used.

The time will be taken from the command "go" given by the company captain until the nozzle and hose are attached to the ladder rung and line is charged.

Penalties of 5 seconds will be invoked for each error or mistake made, including those enumerated in previous evolutions and for those applying to faulty ladder work, ladder and hose ties, etc.

After completion of the evolution, return equipment, hose, ladder, etc., to original positions and places.

1944 Regional Schools Finals Yet to be Held

The site for conducting these drill evolutions should be selected with consideration for freedom from obstructions and hindrances, adequacy of open space and drainage for the nozzle streams, convenience of fire hydrant location and adequacy of pressure and water supply to the hydrant and availability of an adjacent, 2-story building which can be used. If a 2-story building is not available, laddering to the roof of a 1-story building may be satisfactory for practice training.

The location should preferably be such as to permit setting the truck at a distance of about 75 feet from the hydrant and 75 to 100 feet from the 2-story building with the possibility of laying the hose lines from a hydrant at one end of the area and continuing between the truck and the building terminating with the nozzles toward the other end of the grounds and with open space beyond, into which the water streams can be directed.

The tips used on the 2½-inch nozzles shall be either 1-inch or 1¼-inch size, preferably 1¼-inch. The tips used on the 1½-inch nozzles shall be ½-inch size.

Penalties of 5 seconds will be invoked for each error or mistake made in each evolution. Some of the mistakes considered are: Unnecessary rough handling in general; dragging loose couplings on ground; dropping couplings or nozzles or other equipment subject to damage; leaky connections; violation of instructions; poor and improper rope work; kinks in hose lines; improper use of hose clamp; lack of organization of company, evidenced by delays and confusion in performance; and others.

1. Two 150-foot Lines from Hydrant.

Use one 6-man company including a captain. The hose truck will be set about 75 feet from the hydrant in the direction the hose lines will be laid, with the rear of the truck toward the hydrant. The hose body of the truck is not divided and only one line of hose can be removed at one time.

Three men will be in position on the rear step of the truck. The captain of this company will be in the seat alongside the driver and one man will be in position on the running board alongside the captain.

Upon command "go" by the captain, the company will remove 2 lines, each consisting of 150 feet of 2½-inch hose, the 2 designated shut-off nozzles, one hydrant wrench from the truck and lay the two 150-foot lines from the hydrant, attach the nozzles, turn on the hydrant and direct the streams toward a designated place. When the streams appear, there will be only 2 men at each nozzle.

(*Continued on page 20*)

Let's Get Acquainted —

JUNIOR FIRE DEPARTMENTS

NUMEROUS requests for information about junior fire fighting organizations have been made by fire departments with the thought that such groups might help offset the present man-power deficiency in their regular forces. A review of information on junior fire departments, furnished by fire companies in the N.F.P.A. Volunteer Firemen's Section, indicates that actually a comparatively small percentage of the member companies maintain junior groups. Among these are some very outstanding junior fire departments, such as those in Sebring, Ohio, and Hummelstown, Pennsylvania.

While fire fighting is a dangerous business, calling for maturity and judgement, a number of departments reported that due to war conditions they have lowered their usual acceptance age from 21 to 18, and in a few cases to as low as 16. Several departments reported that they found it difficult to retain junior members. By the time the boys became 18 they usually had to report for duty in one of the services. Among the advantages of junior fire service programs is the training received in fire prevention, and the preparation of students for future fire service.

Is your department missing from these monthly reports? If the answer is yes, it is probable that you have not yet furnished us with information about your activities by means of the N.F.P.A. member company report that was sent to all members of the Volunteer Section in February. If you have mislaid yours, write for another copy.

Russellville, Ala. The Russellville Fire Department uses a group of Boy Scouts trained as traffic police. Age for membership in regular department is 21 years and over, reports Chief W. A. Grant.

Los Altos, Calif. There are 7 junior fire fighters. They are accepted at an age of 16 years, reports Engineer Roy B. Tettel.

Mount Shasta, Claif. The Mount Shasta Fire Department enrolls high school boys as members of a junior fire department, reports Chief Frank Melo.

Middletown (South Protective District), Conn. The Russell Fire Company has no fixed age for accepting junior members, but bases appointment upon the maturity of each individual, reports Commissioner C. E. Harwood.

Stamford, Conn. The Turn of River Fire Department accepts junior members at an age of 17, reports Chief Gerald W. Shields.

Talleyville, Del. Talleyville Fire Company accepts members of the age of 18 with a letter of consent from parents or guardian, reports Lawrence C. Murray, Secretary.

Delray Beach, Fla. The Delray Beach Fire Department accepts junior members at the age of 16, writes Chief W. V. Croft.

Fox Lake, Ill. The Fox Lake Volunteer Fire Department accepts junior members at the age of 16, writes Chief E. R. Burlugh.

McLean, Funks Grove, Ill. Chief Harry E. Hanes reports that while there is no junior fire department, fire company members are accepted at the age of 18.

Mt. Pulaski, Ill. The Mt. Pulaski Fire Department accepts members at the age of 18, writes Claude Koller, Secretary.

O'Fallon, Ill. Capt. Vernon J. Scheibel of the O'Fallon Volunteer Fire Department reports that while they have no junior fire department, members are accepted for fire service at the age of 18.

Troy, Ill. Chief E. J. Helmick reports that their junior fire department accepts members for fire service at the age of 18.

Lawrence, Ind. Assistant Chief Jesse Horton reports that members of their junior fire department are accepted for service at the age of 14.

McGregor, Iowa. Chief William B. Walter reports that junior fire department members are accepted from 12–18 years of age.

Burlington, Kansas. Chief M. C. Bailey of the Burlington Fire Department reports that they hope to organize a junior department.

Chanute, Kansas. Chief C. W. Brennan reports that 12 high school and junior college students are enrolled as junior firemen.

McPherson, Kansas. Assistant Chief Garold D. Pierce reports that their junior fire department, which is inactive at present, accepts members for fire service from 12 to 15 years of age.

Camden, Maine. Chief Allen F. Payson reports that junior members are accepted for fire service at the age of 18.

Cumberland, Maine. Chief H. M. Bragg reports "using some high school boys from 15 to 18."

Harrison, Maine. Chief Clifford D. Denison reports that junior members are accepted for fire service at the age of 15.

Richmond, Maine. Chief Maxwell D. Marriner reports that junior members are accepted for fire service at the age of 16.

Brooklyn Park, Md. Chief E. L. Keener reports that auxiliary members are accepted for fire service at the age of 16.

Jessup, Md. Chief John H. O'Lexey reports that junior members are accepted for fire service at the age of 14.

Charles County, Md. Chief Charles M. Levering of the La Plata Volunteer Fire Department reports that junior members are accepted for fire service at the age of 16, but some boys of 14 to 16 are enrolled.

Odenton, Md. Fire Marshal W. C. Peterson reports that junior members are accepted for fire service at the age of 16.

Orchard Beach, Md. Driver Edwin S. Schmidt reports that junior fire department members are enrolled from 12 to 18 years of age.

Upper Marlboro, Md. Secretary R. Harrison Sothoron reports junior members enroll for fire service at the age of 18.

Barnstable, Mass. Secretary David L. Crocker of the Barnstable Fire District reports that junior members are accepted for fire service at the age of 16.

Hingham, Mass. Chief A. W. Kimball reports 30 junior members. They are accepted at the age of 17.

Sullivan, Mo. Secretary D. S. Moss reports that their junior firemen are accepted for duty at the age of 16.

Sutton, N. H. Chief Vernon F. West, of the North Sutton Volunteer Fire Department, reports that his department is just starting a new junior fire department.

Wolfeboro, N. H. Chief L. P. Mansfield reports that his junior fire department uses boys for fighting forest fires from the age of 14 upward.

Hamilton Twp., N. J. Chief E. C. Skimmons, of the Hamilton Fire Company, Inc., 4th Fire District, reports that junior firemen from the age of 14 upward are used to put up fire lines, hand out equipment from the apparatus, clean up, etc. The juniors are instructed for a two-hour period every other week.

Morris Twp., N. J. Secretary Owen F. O'Donnell reports that their junior firemen are accepted at the age of 16.

Pennsauken Twp., N. J. Chief Walter L. Burgen, of the Delaware Gardens Fire Company, reports that for the duration only, junior firemen are accepted for fire service at the age of 16 and over.

Pennsauken Twp., N. J. Fire Marshal Harry A. Robertson, Sr., of the North Merchantville Fire Company reports that their junior firemen are accepted for service at the age of 16.

Melrose, N. Mex. Secretary E. F. Stahl, of the Melrose Fire Department, reports that while they have no junior fire department, the fire department has been training boy scouts in firemanship.

St. James, N. Y. Chief Harold P. Cahill, of the St. James Fire Department, reports that their junior fire department has been discontinued for the duration. Fire department members were normally accepted from the ages of 18 to 45, but for the duration the age range has been extended to 16 to 65.

West Sayville, N. Y. Secretary John Van Wyen reports that they have 43 junior firemen accepted for duty at the age of 16.

College Corner, Ohio, and West College Corner, Ind. Chief Elmer Reister reports that junior firemen are accepted for duty at the age of 16.

Fairport Harbor, Ohio. Chief Verne Nortunen reports that junior firemen are accepted for duty at the age of 16.

Maderia and Indian Hill, Ohio. Chief Floyd E. Nelson reports that junior firemen are accepted at the age of 16.

Sebring, Ohio. The celebrated Sebring Junior Fire Department was described in VOLUNTEER FIREMEN for March, 1938, and noted throughout the country. It has been largely inoperative because most of the boys are now serving in the armed services, according to word from Chief "Sal" Trainer.

Clarks Summit, Pa. Secretary Paul E. Buntz of the Clarks Summit Fire Company No. 1 reports that in addition to having the "oldest volunteer fireman in the United States in the person of Chief Joseph W. Hall" (see VF, May 1944), the company has an active junior fire department accepting boys for fire service from the ages of 16 to 21.

Dallastown, Pa. Secretary Ivan G. Markel, Rescue Fire Company No. 1, indicates that while they have no separate junior fire department, members are accepted for service at the age of 16.

Elkins Park, Pa. Chief William Gottschalk, of the Ogontz Fire Company, reports that while they have no separate junior fire department, members are accepted for fire service at the age of 18.

Green Ridge, Pa. Chief F. Connor Griffith reports that junior firemen are accepted for duty at the age of 16.

Haverford, Pa. Chief Emil R. Keller, of the Manoa Fire Company, reports that while they have no separate junior fire department, they nevertheless, as a war measure, accept boys for fire duty at the age of 16.

Hummelstown, Pa. Secretary Edgar A. Spotz, Chemical Fire Company No. 1, and who serves as chief of the Hummelstown Auxiliary Fire Fighters, reports that their junior firemen from this auxiliary are accepted for duty at 16. A complete report of this company was printed in VOLUNTEER FIREMEN for January, 1944.

North Belle Vernon, Pa. Secretary H. W. McConnell, of the North Belle Vernon Volunteer Fire Company, reports that they have a junior fire department, although members are not accepted for fire service before the age of 21.

Prospect Park, Pa. Secretary G. E. Granger, Prospect Park Fire Company No. 1, reports that juniors are accepted for duty at the age of 16.

Cranston, R. I. Chief Arthur E. Church, of Volunteer Fire Company No. 1, reports that they have a junior volunteer fire department with members accepted for duty at the age of 16.

Warwick, R. I. Secretary Howard Downey, of the Conimicut Volunteer Fire Company No. 1, reports that they have a junior fire department. Firemen are accepted for service at the age of 18.

Victoria, Va. Captain R. W. Williams, of the Victoria Fire Company, reports that they have a junior fire department with members accepted at the age of 16 for training.

Warrenton, Va. Secretary P. M. Succuth, of the Warrenton Volunteer Fire Department, reports that they have a junior fire department with members accepted at the age of 18 for fire service.

Cle Elum, Wash. Secretary I. L. Byars reports that their fire department once tried a junior organization, but it is not active at the present time.

South Parkersburg, W. Va. Secretary Russell Lockhart reports that they accept boys at the age of 16 to participate in fire courses, but they are not used in fire fighting until they reach 18.

Vernon, B. C., Canada. Chief Fred S. Little reports that their junior fire department was discontinued when the war started.

Neepawa, Man., Canada. Chief C. W. Parrott, of the Neepawa Fire Brigade, reports that they accept members for fire service at the age of 16.

What Pay Do the Boys Get?

(Continued from last month)

OHIO

ANDERSON TOWNSHIP FIRE DEPT., Anderson Twp., Ohio (10,000 population). Call men receive $2 for building fires and $1 for other alarms. Chief receives salary.

BASCOM COMMUNITY FIRE DEPT., Bascom, Ohio. (2,500 population). Each fireman responding receives $1 per call.

BELPRE VOLUNTEER FIRE DEPT., Belpre, Ohio (3,500 population served). Firemen serve without pay.

COMMUNITY VOLUNTEER FIRE DEPT., Cadiz, Ohio. (3,000 population). Members are paid $5 per year to protect their families through state compensation in case of fatal accidents.

CARROLLTON VILLAGE FIRE COMPANY, Carrollton, Ohio. (2,800 population). Men receive $1 per hour for fires and $1 per month for meetings and drills. Extra work $1 an hour.

CHESTERLAND VOLUNTEER FIRE DEPT., INC., Chesterland, Ohio (1,600 population). Firemen without compensation.

COLLEGE CORNER VOLUNTEER FIRE DEPT., West College Corner, Indiana, and College Corner, Ohio. Men are paid for alarms and drills attended. Full-time chief paid by village taxes.

FAIRFIELD FIRE COMPANY, Bath Twp., Ohio (23,000 population). Chief paid $5.50 per month, assistant chief $4.50 per month, $1 per hour while on run plus $500 per year contract with trustees. Firemen donate salaries back into treasury.

FAIRPORT VOLUNTEER FIRE DEPT., Fairport Harbor, Ohio (5,000 population). Men are paid $2 for first hour and $1 thereafter for alarms and drills attended. There is one full-time paid man.

GRANVILLE VOLUNTEER FIRE DEPT., Granville Village and Twp., Ohio. Volunteers serve without pay.

HURON VOLUNTEER FIRE DEPT., Huron, Ohio (2,200 population). Men receive $2 per call or alarm.

INDEPENDENCE VILLAGE FIRE DEPT., Independence Village, Ohio (2,200 population). Chief receives $200 yearly. Firemen receive $2 for monthly drills and $1 an hour on all calls.

LYNDHURST VILLAGE FIRE DEPT., Lyndhurst, Ohio (4,000 population). Call men are paid $3 per call and $3 per month for drills. There are 2 full-time paid men.

MADEIRA AND INDIAN HILL FIRE COMPANY, Villages of Madeira and Indian Hill, Ohio. (Each village about 2,500 population.) Call men receive $2 for run if present at drills.

VILLAGE OF MARIEMONT FIRE DEPT., Mariemont, Ohio. Call men receive 50c per month. There are 5 full-time paid firemen.

MIAMISBURG FIRE DEPT., Miamisburg, Ohio. Firemen get $1.50 an hour. There are 2 drivers and relief driver full time.

MINGO VOLUNTEER FIRE DEPT., Mingo Junction, Ohio. Captains receive $1.50 per month, call men $1 per month, and all receive 75c an hour on call. The chief and 3 drivers are full-time paid men.

MORGAN HOSE COMPANY, Rock Creek, Ohio (3,500 population served). Men receive $2 for fires and drills attended.

VOLUNTEER FIREMEN OF NAVARRE, Navarre, Ohio. Volunteers serve without pay.

NEWBURGH HEIGHTS FIRE DEPT., Newburgh Heights, Ohio. Men receive $1.50 per drill.

RICHFIELD TOWNSHIP FIRE DEPT., Summit County, Ohio (1,400 population). Chief receives $20 per month, firemen $1 per hour for fires and 50c for drills.

ROSSFORD AND ROSS TOWNSHIP VOLUNTEER FIRE DEPT., Rossford, Ohio (4,500 population). Men receive $3 per hour on basis of fire alarms attended. Rescue service without compensation.

SEVILLE VOLUNTEER FIRE DEPT., Seville, Ohio (2,000 population). Men receive $2 per call and 75c per hour for alarms and drills.

SMITHVILLE COMMUNITY FIRE COMPANY, Smithville, Ohio (village population 700). Volunteers are not paid.

SPRINGFIELD TOWNSHIP FIRE DEPT., Sawyerwood, Ohio (4,000 population). Men receive $1.25 per hour or fraction thereof. Chief and assistant chief are full-time paid men.

TRURO TOWNSHIP FIRE DEPT., Truro Twp., Ohio. 8 men receive $3 per run. Chief is full-time paid man.

THE UTICA VOLUNTEER FIRE COMPANY, Utica, Ohio (1,400 population). Men receive 50c per drill and are paid for fires on a "sliding scale, depending on time."

WAYNESBURG FIRE DEPT., Waynesburg, Ohio (1,200 population). Volunteers serve without pay.

WESTERVILLE VOLUNTEER FIRE DEPT., Westerville, Ohio. Each man receives 50c for attending monthly drills. Men receive $2 per fire, $1 for false alarms. Chief is full-time paid man.

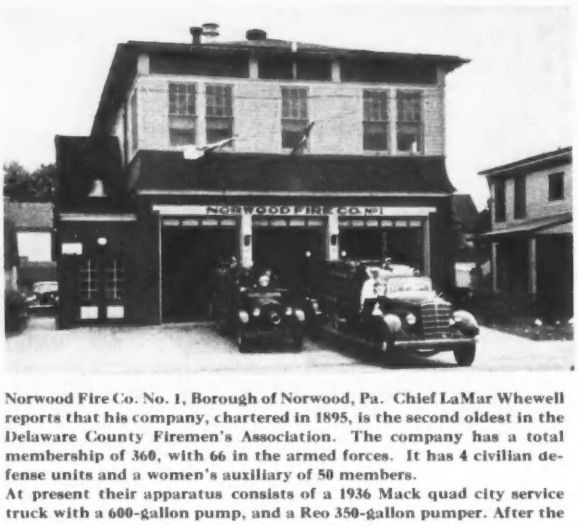
OKLAHOMA

APACHE VOLUNTEER FIRE DEPT., Apache, Okla. (1,800 population). Firemen serve without pay.

BETHANY FIRE DEPT., Bethany, Okla. Men receive $35 annually.

CLAREMORE FIRE DEPT., Claremore, Okla. (5,000 population). 3 volunteers serve for their quarters and are paid when they work as substitutes on vacation. There are 8 full-time men.

EDMOND FIRE DEPT., Edmond, Okla. (6,000 population). Students of Central State College receive salaries and $1 per fire. Call men are paid $1 for fires and $1 for drills. There are 4 full-time paid men.



Norwood Fire Co. No. 1, Borough of Norwood, Pa. Chief LaMar Whewell reports that his company, chartered in 1895, is the second oldest in the Delaware County Firemen's Association. The company has a total membership of 360, with 66 in the armed forces. It has 4 civilian defense units and a women's auxiliary of 50 members.
At present their apparatus consists of a 1936 Mack quad city service truck with a 600-gallon pump, and a Reo 350-gallon pumper. After the war, the company plans to purchase a 750-gallon pumper.
In the Norwood Fire Company's area of protection are an oil refinery and a 350-home war housing project.

OKLAHOMA CITY AUXILIARY FIRE DEPT., Oklahoma City, Okla. Firemen serve on a strictly volunteer basis when called by the paid fire department.

POTEAU FIRE DEPT., Poteau, Okla. (4,000 population). Call men receive $1.75 per drill. Chief is full-time paid fireman.

STILLWATER FIRE DEPT., Stillwater, Okla. (10,000 population). Department has 18 college students taking fire service course. There are 12 full-time paid firemen.

WAGONER FIRE DEPT., Wagoner, Okla. (4,200 population). Call men receive $2 when a 2½-inch line is laid. All other $1. There is 1 full-time and 1 part-time man.

OREGON

CANBY VOLUNTEER FIRE DEPT., Canby, Ore. (1,000 population). Volunteers serve without pay.

McMINNVILLE FIRE DEPT., McMinnville, Ore. (4,500 population). An appropriation of $1,300 divided among men on basis of attendance.

SUBLIMITY FIRE DEPT., Sublimity Ore. (800 population). Volunteers serve without pay.

THE DALLES FIRE DEPT., The Dalles, Ore. (8,500 population). Men receive 50c per drill and $1 per hour on fires. The chief, assistant chief, captain and 4 drivers are full paid.

PENNSYLVANIA

ALBION VOLUNTEER FIRE DEPT., Albion, Pa. (7,000 population served). "No member is paid for his services."

BARRETT TOWNSHIP VOLUNTEER FIRE COMPANY, Barrett Twp., Pa. (3,500 population). Volunteers serve without pay.

BAUSMAN FIRE COMPANY NO. 1, Bausman, Pa. (2,500 population). Volunteers serve without pay.

BEDFORD FIRE DEPT. NO. 1, Bedford Borough, Pa. Volunteers serve without pay.

BELLE VALLEY HOSE COMPANY, Belle Valley, Pa. (1,000 population) Volunteers serve without pay.

BROOKLINE FIRE COMPANY, Brookline, Pa. (7,000 population). (Ladder truck service 30,000). Volunteers serve without pay.

BRYN ATHYN FIRE COMPANY, Bryn Athyn, Pa. (1,000 population) Volunteers serve without pay.

CHEMICAL FIRE CO. NO. 1, Hummelstown, Pa. (3,000 population). Volunteers serve without pay.

CHERRY CITY VOLUNTEER FIRE COMPANY, 1st District Shaler Twp., Pa. (3,000 population). Volunteers serve without pay.

CLARKS SUMMIT FIRE COMPANY NO. 1, INC., Clarks Summit, Pa. Volunteers serve without pay.

CONCORDVILLE FIRE COMPANY, Concord Twp., Pa. (5,000 population). Volunteers serve without pay.

DOVER UNION FIRE & HOSE COMPANY NO. 1, Dover, Pa. Secretary is paid for janitor duties.

EAST BETHLEHEM TOWNSHIP VOLUNTEER FIRE DEPT., Fredericktown, Pa. (20,000 population): Volunteers serve without pay.

EMPIRE HOOK & LADDER COMPANY, Pottstown, Pa. (23,000 population). There are 100 volunteers and 2 full-time paid men.

FAME FIRE COMPANY NO. 2, Lewistown, Pa. (15,000 population). Volunteers serve without pay.

FIRE COMPANY NO. 1, Huntingdon, Pa. (8,000 population). Volunteers serve without pay.

FRIENDSHIP HOSE COMPANY NO. 1, Spring Grove, Pa. (1,300 population). Firemen serve without pay.

GREEN RIDGE VOLUNTEER FIRE COMPANY NO. 1, Green Ridge, Pa. (1,000 population). Volunteers serve without pay.

LATROBE VOLUNTEER FIRE DEPT., Latrobe, Pa. (13,000 population) Volunteers serve without pay.

LENNI HEIGHTS FIRE COMPANY, Lenni Mills, Pa. (8,000 population). "Strictly volunteer."

LLANERCH FIRE COMPANY-HAVERFORD TOWNSHIP BUREAU OF FIRE, Upper Darby, Pa. (5,000 population in Llanerch; 35,000 population twp). Volunteers serve without pay.

MANOA FIRE COMPANY, Manos-Haverford Twp., Pa. (8,000 population). Volunteers serve without pay.

VOLUNTEER FIRE DEPT. OF MERCER, Mercer, Pa. (3,000 population.) Volunteers serve without pay.

NEW KENSINGTON FIRE DEPT., New Kensington, Pa. (24,000 population). Volunteers serve without pay. There are 5 full-time paid men.

NORTH BELLE VERNON VOLUNTEER FIRE COMPANY, North Belle Vernon, Pa. (7,000 population). Men serve without pay.

NORWOOD FIRE COMPANY NO. 1, Norwood, Pa. (5,100 population). Men serve without pay.

OAKS FIRE COMPANY NO. 1, Oaks, Pa. (5,000 population). Men serve without pay.

OGONTZ FIRE COMPANY, Elkins Park, Pa. Volunteers serve without pay.

PENN WYNNE OVERBROOK HILL'S FIRE COMPANY, Penn Wynne Overbrook Hill's, Pa. (5,600 population). "All are volunteers except 2 full-time paid men."

PROSPECT PARK FIRE COMPANY NO. 1, Prospect Park, Pa. (5,100 population). Volunteers serve without pay.

RESCUE FIRE COMPANY NO. 1, Dallastown, Pa. Volunteers serve without pay.

ROSEDALE VOLUNTEER FIRE COMPANY, Rosedale, Pa. (1,000 population). Volunteers serve without pay.

SAEGERTOWN VOLUNTEER Fire Dept., Saegertown, Pa. (3,000 population). Volunteers serve without pay.

UNDINE FIRE COMPANY NO. 2, Dellefonte, Pa. (10,000 population) Volunteers without pay.

UNIONTOWN FIRE DEPT., Uniontown, Pa. (21,819 population). 125 active volunteers serve without pay. There are 14 full-time paid men.

WAYNESBURG VOLUNTEER FIRE COMPANY, Waynesburg, Pa. (8,000 population). Volunteers serve without pay.

WEST END FIRE COMPANY NO. 1, Stowe, Pa. (2,600 population). Volunteers serve wihout compensation. There are 3 full-time paid men.

RHODE ISLAND

BRISTOL FIRE DEPT., Bristol, R. I. (12,000 population). Volunteers serve without pay.

CONIMICUT VOLUNTEER FIRE COMPANY NO. 1, Conimicut, R. I. (3,000 population). Volunteers serve without pay. There are 2 full-time men.

EAST GREENWICH FIRE DEPT., East Greenwich, R. I. (4,000 population). Volunteers serve without pay.

NORTH CUMBERLAND VOLUNTEER FIRE DEPT., Arnold Mills, Cumberland, R. I. (500 population). Volunteers serve without pay.

NORTH KINGSTOWN FIRE DEPT., Wickford, R. I. (10,000 population). Men receive $2 per fire and $1 per fire after 3 hours. There are 4 full-time paid firemen.

PAWTUXET VOLUNTEER FIRE COMPANY, Cranston, R. I. Volunteers serve without pay.

WASHINGTON FIRE DEPT., Washington, R. I. (2,000 population). Volunteers serve without pay.

YAWGOOG FIRE DEPT., Rockville, R. I. (1,000 population). Volunteers serve without pay.

SOUTH DAKOTA

ONIDA FIRE DEPT., Onida, S. D. (650 population). Volunteers serve without pay.

PIERRE VOLUNTEER FIRE DEPT., Pierre, S. D. (4,000 population). All volunteer.

TENNESSEE

BROWNSVILLE FIRE DEPT., Brownsville, Tenn. (4,000 population). Men are paid $4 for fires of 2 hours and $2 for false alarms. There is 1 full-time paid man.

TEXAS

COLEMAN FIRE DEPT., Coleman, Texas (25,000 population). Volunteers get their lights and water free. There are 2 full-time paid men.

DENTON FIRE DEPT., Denton, Texas (12,500 population). Volunteers serve without pay, but there are 12 part-time men receiving $40 a month and 10 full-time paid firemen.

DUMAS FIRE DEPT., Dumas, Texas (5,000 population). Volunteers receive $1 per drill; $2 at fires where 2½-inch hose is laid.

FLOYDADA VOLUNTEER FIRE DEPT., Floydada, Texas (2,897 population). Call men are paid $1 for alarms. No pay for drills. There is 1 full-time paid man.

FREER FIRE DEPT., Freer, Texas (4,000 population). Volunteers serve without pay.

GARDEN OAKS FIRE DEPT., Garden Oaks, Texas (approximately 3,000 population). Volunteers serve without pay. There are 2 paid chauffeurs.

GRAND PRAIRIE VOLUNTEER FIRE DEPT., Grand Prairie, Texas (15,000 population). Men are paid $18 a year. There is 1 full-time paid fireman.

JELLICO FIRE DEPT., Jellico, Tenn. (3,500 population). Men are paid $4 per month for drills, $4 per fire and $1 per false alarm.

KERMIT VOLUNTEER FIRE DEPT., Kermit, Texas (10,000 population). Volunteers serve without pay.

MILAN FIRE DEPT., Milan, Tenn. (5,400 population). Men are paid $4 for each alarm answered.

ROCKPORT VOLUNTEER FIRE DEPT., Rockport, Texas (3,500 population in county). Volunteers serve without pay.

TEXAS CITY VOLUNTEER FIRE DEPT., Texas City, Texas (14,000 population). Volunteers serve without pay. There is a paid driver on each of the uptown trucks.

UTAH

BINGHAM VOLUNTEER FIRE DEPT., COMPANY NO. 1, Bingham Canyon, Utah (3,000 population). Volunteers serve without pay.

VERMONT

TEAGO FIRE DEPT., South Pomfret, Vt. (800 population). Volunteers serve substantially without pay.

The amount of information reported on this subject is so extensive that we are unable to complete the listing of pay schedules this month.

EGYPTIAN THEATRE BLAZE
Scottsbluff, Nebraska

MOTION picture theatre fires give firemen in the average community a lot of trouble, due to the size of such structures, their construction and arrangement. Perhaps typical of such fires was the blaze that destroyed the Egyptian Theatre in Scottsbluff, Nebraska, on March 5th.

In a report by the Nebraska Inspection Bureau the fire fighting methods at this fire were described. There were also some interesting conclusions that would help to prevent similar fires.

No show was in progress at the time of the fire (11:03 A.M.). Two boys were on the stage cleaning out the dressing rooms which had not been used as such for some time. A local ladies dress shop had planned a style show to begin that evening and a rehearsal had been called for 4:30 that afternoon. Two janitors were engaged in cleaning up the auditorium. The machine operator in company with the artist had just entered the theatre. Coming down the aisle they had passed the projection booth when they heard one of the janitors say something about a fire on the stage. Looking in that direction, they noticed what appeared to be a small flame or puff of smoke near the floor at the right side of the stage. The fire seemed to be in the outer curtain, which was open and hanging in folds at the sides of the stage.

There was no asbestos fire curtain, a cloth curtain which was allegedly chemically treated for flameproofing being the only protection of the proscenium opening. This curtain had at one time been treated with chemicals to make it flameproof, but the effective period of this process had evidently expired.

The artist grabbed the 1½-quart extinguisher which hung just outside the entrance door to the booth. Facing the stage again, he saw that the flames were spreading rapidly. He hurried down the aisle and tossed the extinguisher up to the boys on the stage who played the extinguisher on the fire. By that time it had raced across and up the travel curtain, which was in front of the screen, and almost reached the rigging loft, making hand extinguishers useless. Although there were two 2½-gallon soda and acid extinguishers and a 1½-inch standpipe with hose on stage, no use was made of these devices.

After tossing the small extinguisher to the boys on the stage, the artist ran to the telephone and called the fire department. The rapidly spreading fire and heavy smoke soon drove everyone out of the theatre. Everyone left by the front door as the fire was already interfering with the use of the rear exit. The fire department received the call at 11:30 A.M. and was on the scene, laying hose by 11:04½.

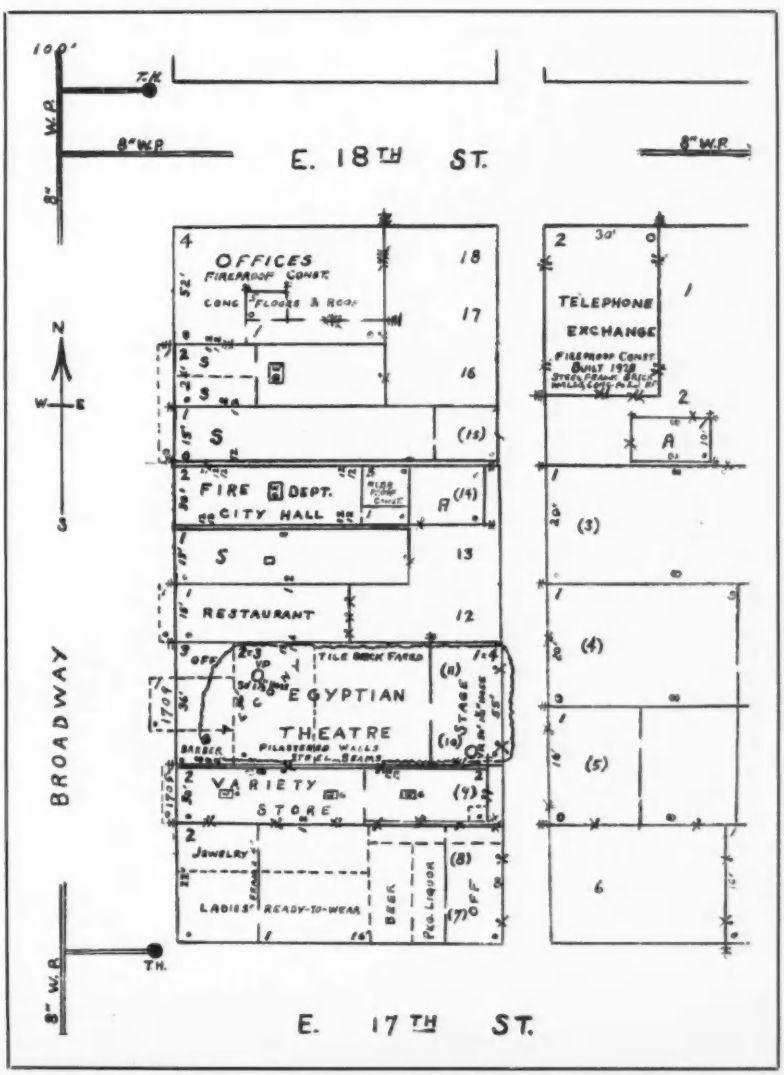
The north rear door, left open by the janitor to admit trash men, gave the firemen ready access to the theatre at this point. They entered at once and attempted to quench the flames with a ¾-inch line operated off a booster pump. This, proving ineffective, was soon replaced by two 1½-inch lines which were siamese connected from a 2½-inch line operated by the 500-gallon pumper from which another 2½-inch line was also operating. Three 2½-inch lines were laid from the 1,000-gallon pumper, two being taken into the theatre from the front, one down each aisle, the other to the roof of the 2-story building adjoining on the south.

The dense smoke prevented the firemen from penetrating far enough into the theatre to use any of the lines effectively and after about 15 minutes they were obliged to withdraw. At 11:20 A.M. the chief called the U. S. Army Air Base, whose fire truck arrived at about 11:30. They connected two 2½-inch lines to their 500-gallon pumper and took them to the roof of the 1-story building north of the theatre. The Gering Fire Department was called at 11:45 and arrived with their truck at 11:55. They connected one 2½-inch line to their pumper and took it to the roof of the building south of the theatre.

Although not called, the towns of Mitchell and Morrill sent their apparatus to the fire. Mitchell arrived about 12:45 and connected one 2½-inch line to their pumper and joined those on the roof of the building on the north. Morrill came about 1:00. They laid no hose but stood by all afternoon. About noon the theatre roof fell in and a section of the south wall caved in, being drawn in by the warping of the steel roof truss.

Fighting the fire from the roofs of the adjoining buildings on the north and south, from the street and from the alley, using a total of 5 pumpers and 9 hose streams to pour water into the theatre and onto the roofs of adjoining buildings, the firemen were able to prevent the spread of fire. The fire was apparently out about 5:30 P.M. No persons were injured, but there can be no doubt that there could have been a

(*Continued on page 20*)



MORE FROM THE ITALIAN FIRE FRONT

By CAPTAIN H. W. BACKMAN

N.F.P.A. member, Captain Backman, formerly of the Waltham, Mass., Fire Department, is not a new contributor to VOLUNTEER FIREMEN. In the August 1944 issue, the Editor published Captain Backman's first letter from the Italian fire fighting front where he is a fire protection officer with the U. S. Army.

FIRE apparatus and equipment are very poor in this country, and I sometimes wonder if the fire service benefited when it became nationalized.

By far most of the apparatus would not be allowed on the streets at home. I have inspected fire departments and found old fashioned hand pumps in service. There are a few fairly modern pumpers in the country but poorly designed and cumbersome. These have an enclosed body and are only found in the larger cities. If it were not for the fireproof construction of most of the buildings; the apparatus and equipment would have to be entirely different. As it is, many fires can be controlled by using a small portable pump. Water mains are small and hydrant outlets are usually for 1½-inch hose and pressures of about 2½ or 3 atmospheres. (*29 to 44 p.s.i. — Ed.*)

Most departments are overmanned. That is typical of all of Italy. The country is overpopulated and work must be found for as many as possible. People are given a small job to do just to keep busy. If I were to have my bag carried in a building, I would have three or four men to do it.

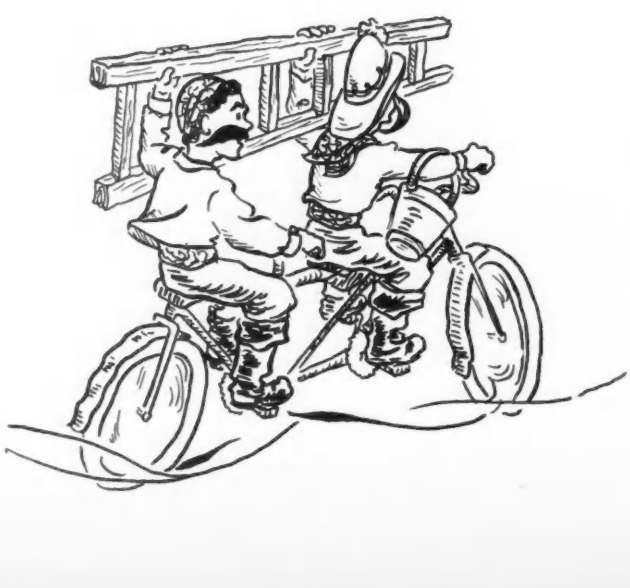
I was watching some firemen drill one day. The ladders that they use are like the window washers use at home. They are in short sections and one is attached to the other until the desired length or height is attained. This is accomplished by first placing a short section against the building. One man ascends, the next section of the ladder is then handed to him and he slides it along the side of the building. His position during this is near the top of the first section standing on one foot, the other through the rungs. When he is about to slide the second section in place on top of the first, he used the foot that was through the rungs to brace himself against the building and force the tip of the first ladder away from the building far enough to slide the second section in place. He then continues up and repeats the procedure.

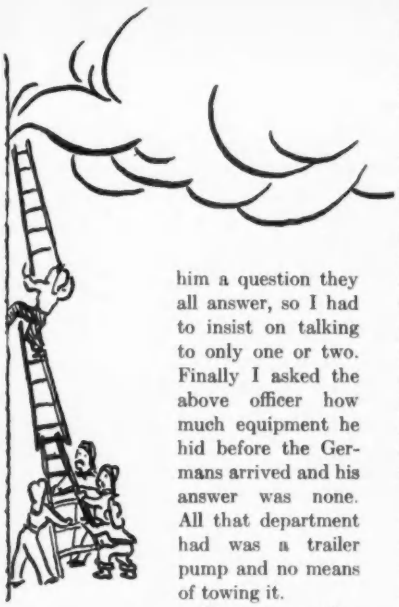
Now the first question in your mind is, as the ladder becomes longer, how about the distance of the base from the building? That is all taken care of. As I mentioned before, there are always plenty of men and two are assigned to the base of the ladder. Their job is to move the base out as the ladder is lengthened. I asked if dog chains could be used to secure the tip, but they had never heard of them, and besides, the men at the foot could steady it. These men do nothing else, just stand by the ladder.

I did not intend to go into an evolution and hope that you can fathom out the above.

Getting back to equipment, good hose is very scarce. Have not seen any rubber-lined or even double-jacket hose. Everything is cheap and crude, even couplings are wired on by the firemen. Single-jacket unlined hose is the common type. The pressures are not great so it is possible to use it, but most of it is very old. I had some sent to me and many lengths burst at pressures under 100 pounds.

As I travel around, I soon can pick out the efficient fire chiefs and officers. For example, I inspected a department in a fairly large and important city in one part of Italy, and of course talked with the officer-in-charge. I would ask a question and he would turn to his assistant for the answer. This reminds me, you never talk with the chief only. There are always from six to ten men with him, and if you ask





him a question they all answer, so I had to insist on talking to only one or two. Finally I asked the above officer how much equipment he hid before the Germans arrived and his answer was none. All that department had was a trailer pump and no means of towing it.

Went to another city of about the same size and the chief had saved everything. He ordered all equipment out to the woods where it was buried. That chief and his department were the most efficient that I have seen in Italy.

Breathing apparatus, as they call their masks, are of poor design and it is very difficult to obtain cylinders of oxygen, carbon dioxide or acetylene.

"There are no fire alarm boxes. Most alarms are given over the telephone. Very few cities have telephones so people run or ride a bicycle to the station."

There are some extinguishers in a few of the stations and in a few buildings. I have recommended that their use be discontinued and pails of water used instead. This was sent to all Public Safety Officers in my region. Many of the extinguishers have been dropped, some show corrosive effects, and we do not know if they had been frozen or who filled them or when. As I see them in buildings I cannot but think what a false sense of security they are giving by their presence. Many times only the shell of an extinguisher is placed in a conspicuous place.

I inspect hotels and theaters used by our troops and in most cases the manager will show me a hose connected to a standpipe. When I inquire about the water, he answers that the main is broken and there is no water. I do not allow the theaters to depend on their extinguishers, though they usually have two, but insist that they have pails of water. Exits are not marked and it is very difficult to find a way out in the dark. The buildings are not like ours. Passageways and aisles are very complicated, and to add to the danger in an emergency, mirrors are placed all through the theaters.

Many small trailer and portable pumps were in use, a good number being damaged and parts from these are being used to repair as many as possible. I was very much surprised to see a piston pump on a trailer. I believe it was an English make. It was the first piston pump outside the hand pumps that I had seen in Italy. All the others are centrifugal.

In addition to inspecting fire equipment, I must see that the firemen are fed and paid. The Ministry of the Interior is responsible for salaries and clothing now.

I have had several pleasant talks with the Fire Committee on the Ministry of the Interior who has always offered me more than I ask for. I have been conservative in my requests, always explaining why I think certain things should be done.

I have enjoyed my work very much and my colonel has given me a very nice recommendation. I also received a commendation from General Clark, along with five others in our company.

Nebraska Fire School

Grand Island, Nebraska. The State Fire School was held at the South Side Fire Station April 24–26. Among the speakers were Harry K. "Smoky" Rogers whose subject was "Why We Are Here"; Chief J. W. Just of College Park, Maryland, on "Fire Tactics"; and Editor Warren Y. Kimball of the VOLUNTEER FIREMAN. An actual demonstration of foam, fog and carbon dioxide was included.

Rhode Island Uses Planes to Direct Forest Fire Fighters

THE Rhode Island State Forestry Service is using an airplane in conjunction with a "walkie-talkie" radio patrol to direct volunteer fire companies to forest fires at inaccessible locations. At a recent fire an air observer in communication with a radio unit on the ground was able to direct apparatus to head off a fire which otherwise would have been difficult to approach, as several woods roads were blocked by washed out bridges and timber downed by hurricanes.

THE M·S·A
All-Service
GAS MASK
(U. S. BUREAU OF MINES APPROVED)

You are best equipped to meet gas and smoke conditions encountered by your men when you have the famous M.S.A. All-Service Mask to rely upon! Easily put on and quickly adjusted, comfortable to wear, and efficient in protection against smoke and all gases, including carbon monoxide, the Model "S" All-Service Gas Mask features the *All-Vision* Facepiece (pictured in illustration with Speaking Diaphragm) for maximum vision; automatic timer; lightweight harness, and other design advantages—detailed in Bulletin EA-8, sent promptly on request.

MINE SAFETY APPLIANCES COMPANY
BRADDOCK, THOMAS AND MEADE STS.
PITTSBURGH 8, PA.
District Representatives in Principal Cities

Women Wage War on Fire

By DOROTHY DOWNS

AS VF goes to press, 83 departments in the N.F.P.A. Volunteer Firemen's Section report women's auxiliaries attached to their organizations. This is an interesting and encouraging situation, as it indicates a growing awareness, on the part of women, of the necessity to protect life and property from destruction by fire.

To reduce the high percentage of home fires, by an appreciable number, fire prevention education must be taken into the home, and this can be done most effectively by women. Actual fire fighting training, given to fire department auxiliaries made up of women, is a very important part of this instruction plan.

There has been an old and accepted idea that fire fighting should be done by men; that anything to do with combating the fire menace shall be carried on by men. However, history contradicts this belief. As early as the first half of the 17th century, when an alarm of fire was sounded by ringing church bells, two lines, of both men and women, were formed to pass buckets of water from the nearest well or pump to the fire. Are 20th century women any less interested in the protection of their families and homes than the women who fought beside their men in the early days of the colonies?

Fire is no respector of persons and continues to cause death and destruction to everything in its path. Although the growth of this country has brought about great advances in fire fighting methods and improvement in equipment, the loss of life and high property damages are unnecessarily excessive. Too many years have we practiced the theory of waiting until fires break out to fight them. Actually, many fires can be fought before they ever get started. Carelessness, lack of understanding and appreciation of the existing hazards are two very good reasons why our national fire loss is so high. Fight the fire before it ever shows a spark. That is practicing effective fire protection, and good housekeeping is one of the basic principles, along with knowing how to eliminate or minimize the hazards which can cause fires.

Many women are already organized as auxiliaries to volunteer fire departments. Records show the membership to range from 5 to 245 women fire assistants in the individual companies. With the reports of even more such groups being formed, there is an excellent opportunity for instruction in fire prevention, along with that which is given in fire fighting.

In the early days of civilian defense, a number of groups of women air raid wardens were trained as auxiliaries in Massachusetts and elsewhere. One week after Pearl Harbor the first group received their certificates from the State of Massachusetts. They were qualified to function as auxiliaries under the supervision of the local fire department in the event of an emergency. It is believed that this group was the first of its kind in the country to be so certified.

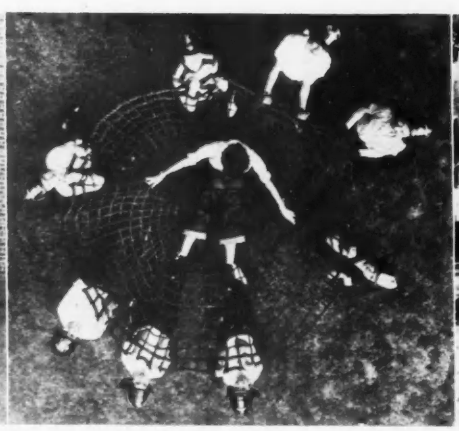
In conjunction with their actual fire fighting training, these women were given instruction in fire prevention, in order that they might assist householders in their communities to make their homes less vulnerable to fires caused by bombing. There is no reason why fire prevention should be emphasized only to meet danger of fire from bombing. Danger from fire exists at all times. It must be controlled by constant vigilance and elimination of all fire hazards.

The excellent work being done by the women's auxiliary organizations offers an unusually good opportunity to enlarge their activities in the fire fighting field. A fire prevention committee, for instance, in each auxiliary organization could do constructive work in promoting home fire safety by enlisting the interest of the women in fire prevention in the community. The auxiliaries might help conduct

(*Continued on page 20*)

Miss Downs holds the important job of assistant to the Chief Engineer of the Associated Factory Mutual Fire Insurance Companies. She is perhaps the only woman fire protection engineer in the country. Miss Downs presents an example of the work women can do in fire protection and prevention. She has been very active in training women for civilian defense, and has been a frequent speaker on fire protection subjects.

Photographs by the Boston Herald



Fire Chief

Are you a Member of

The

INTERNATIONAL ASSOCIATION OF FIRE CHIEFS?

For 62 years the IAFC has striven to promote the interests of the Fire Service of the United States and Canada — it has come to exert a strong influence in National, State and Local affairs pertaining to the Service.

Post-War problems affecting every Fire Department, yes, affecting every fireman, will be difficult and be more effectively dealt with collectively than individually — the IAFC needs the help of every Fire Chief.

Through newspapers and radio, through personal contact with Government, State and Provincial Officials, the IAFC will continue to present the case of the Fire Service

FOR — MORE MODERN EQUIPMENT
MORE ADEQUATE FIRE REGULATIONS
BETTER FIRE SERVICE CONDITIONS

This Is Your Association

If you are not a member, write for an Application Blank to

FRED SHEPPERD, *Engineer-Manager*
International Association of Fire Chiefs

24 WEST 40TH STREET
NEW YORK 18, N. Y.

In Your Own Interest
WRITE TODAY!

THIS SPACE DONATED BY

A·D·T *Electric Protection Services*
AGAINST FIRE · BURGLARY · HOLDUP
A NATION-WIDE ORGANIZATION

CIRCUL-AIR
FIRE HOSE DRYER

- Is easier to use
- Saves drying time
- Reduces hose stretch
- Prevents mildew and rot
- Improves building design
- Air-conditions as it dries

THE CIRCUL-AIR CORPORATION
6339 East Palmer Avenue
DETROIT 11, MICHIGAN

A complete and authentic text, generously illustrated, covering every phase of this specialized kind of fire fighting.

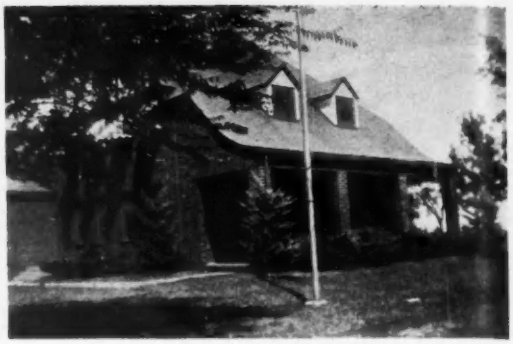
Price $1.00

NATIONAL FIRE PROTECTION ASS'N
60 Batterymarch Street
BOSTON 10, MASS.

Topeka Township Fire Department

(Member N. F. P. A.)

Report by Chief H. P. Little



Attractive 2-story, brick veneer residence-type fire station housing Township Board Office, apparatus room, apartment for chief, and quarters for night apparatus driver.

THE summer of 1938 was a drought season in Kansas. The records of Mr. S. D. Flora, State Meteorologist, show that the month of October closed the driest 3-month period since the precipitation record was begun in 1878. Everything was very dry and grass fires were frequent, as nearly every match or cigarette thrown from a car by a motorist and every housewife who burned her papers seemed to start a fire.

The Topeka Fire Department had contracts for fire protection with three townships, Mission, Soldier and Topeka, that surround the city on all sides. At that time, the Topeka Fire Department consisted of 6 hose companies. One day in September, Chief William J. Cawker found that three of his hose companies, or one half his fire fighting force, were outside the city fighting township fires. On October 1, he notified all the townships that their contracts would be canceled on November 1, (the contracts required 30 days notice by either party to cancel them). That left Topeka Township, the largest and most populous of the three, containing Highland Park and East Hill suburbs, without fire protection of any kind.

A mass meeting was called and a committee appointed to work out a program to supply the needed protection. The township had under construction a water distributing system covering the most populous sections of the township.

This committee decided to go before the legislature when it met in January and have legislation passed enabling townships to supply their own fire protection. On February 21, 1939, an act was passed by the legislature and became law upon publication in the official state paper, February 23. It provided for the establishment of township fire departments in townships having a water system and lying adjacent to a city of the first class, having a population of not less than 60,000 and not over 100,000, giving the township board power to call a special election to vote bonds up to $15,000, to erect a fire station and purchase apparatus and equipment, and to levy a tax not to exceed one mill on all taxable property to maintain a fire department. These proposals both carried by an overwhelming vote at an election held on April 11, 1939.

The township board then ordered an American-LaFrance (International) apparatus with a 500 g.p.m. Hale pump, 1,000 feet of double jacketed 2½-inch hose and 300 feet of d.j. 1½-inch hose. One 28-foot extension ladder, a 14-foot roof ladder and a full complement of small tools were also ordered. This equipment was put in service in temporary quarters June 29, 1939, a contract having been made for a 2-story brick veneer fire station with an apartment for the chief on the second floor, to be erected at a cost of $10,000. This was completed and occupied on September 8.

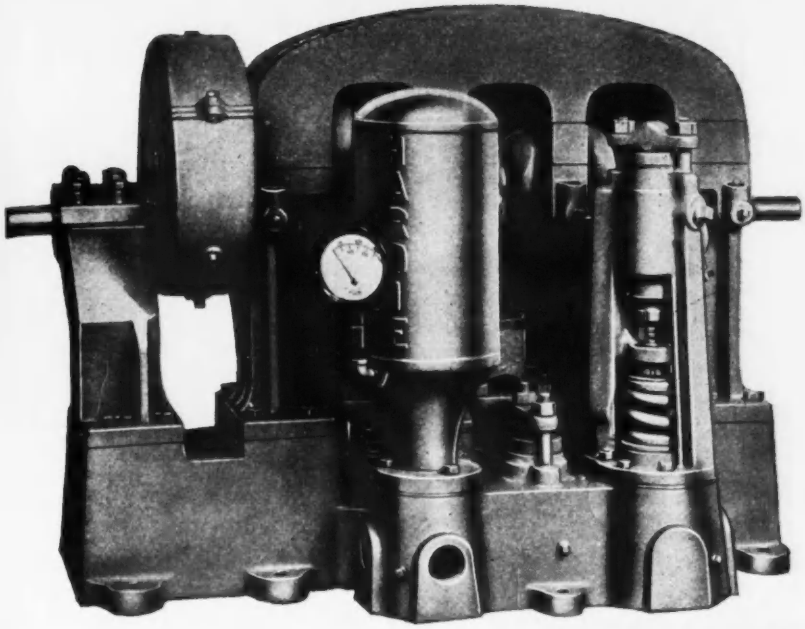
I was then Captain of No. 7 Fire Station in Topeka and the board selected me to be chief of the department. A full paid assistant chief was also hired. A night driver sleeps at the station. The rest of the personnel were volunteer, consisting of 11 men. Drills were held each week, the men paid for attending. Each man was supplied with a helmet, rubber coat, boots, and a red light for his car.

The largest number of alarms responded to by the department in any one year was 96, the smallest being 44. There were 48 alarms last year.

The township has a reciprocal agreement with the Topeka Fire Department whereby they call on each other for assistance in case of large fires within either of their territories. The Topeka Fire Department protects two parts of the township that are inaccessible to the department. These fires are paid for at the rate of $100 for the first hour and $1 per minute for all the time over an hour.

PAY SCHEDULE FOR FIREMEN

Under 30 minutes	$1.00
Over 30 minutes — under 1 hour	1.50
Over 1 hour — under 1½ hours	2.00
Over 1½ hours — under 2 hours	2.50
Over 2 hours	3.00
Each drill attended	.50

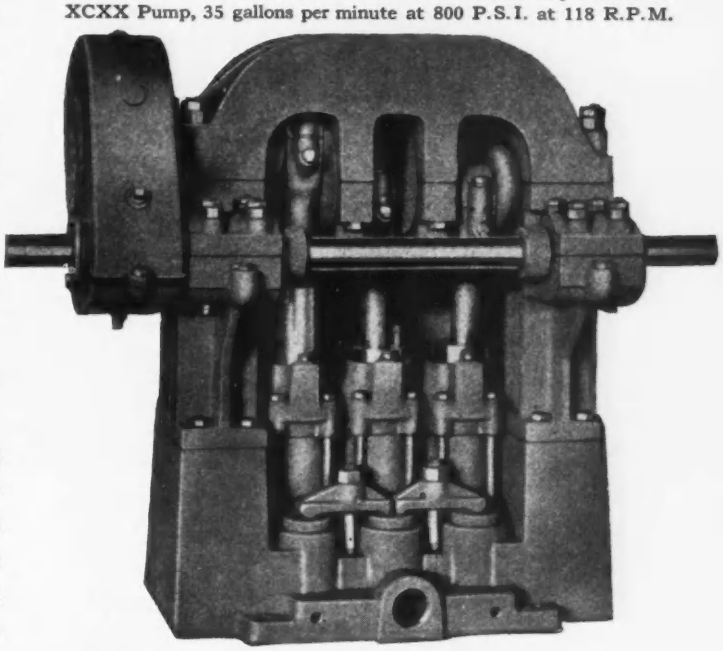


Specify 800 P.S.I.

Above—Hardie Imperial Model LCXA Pump, 60 gallons per minute at 800 P. S. I. at 130 R. P. M. *Below*—Hardie Imperial Model XCXX Pump, 35 gallons per minute at 800 P.S.I. at 118 R.P.M.

● One reason why leading manufacturers of Fog Fire Fighters install Hardie Big Capacity High Pressure Pumps in the complete units they build is because the Hardie pump reaches its full rated capacity and pressure of 800 P.S.I. at slow speed. There is no excessive wear or strain on the pump. It easily delivers the pressure to provide complete atomization.

This means greater dependability, longer life, less trouble and less power requirement. You get 800 P.S.I. without speeding your pump and for long sustained periods without excessive wear on operating parts. Specify a Hardie pump and a Hardie Fog Gun when you buy your new Fog Fire Fighter or convert an old unit into one.



THE HARDIE MFG. COMPANY

Hudson, Mich. Los Angeles, Calif. Portland, Oregon

Canadian Distributor C. W. LEWIS, Grimsby, Ontario

★H★A★R★D★I★E

High Pressure **PUMPS AND FOG GUNS for Fog Fire Fighters**

Fyr-Fyter equipment has proven its value in preventing small fires from becoming disastrous through the loss of life and property. Recent catastrophic fires with terrific loss of life emphasize the urgent need of fire protection. A Fyr-Fyter Instant will usually check most any fire if used immediately.

HELP SAVE LIVES AND PROPERTY

Get Fyr-Fyters for safety's sake. We advise and serve war production plants, public institutions, etc. immediately. Write us today regarding Fyr-Fyter equipment for your own protection.

THE FYR-FYTER CO.
Dept. 20
DAYTON 1, OHIO
WAR BOARDS
ARMY (E) NAVY
Fyr-Fyter

"Half-Mile-Ray"

Portable Emergency Lights

STORAGE Battery and Dry Cell Outfits for all types of service. Also Spotlights for cab mounting on vehicles.

Send for Catalog "V"

THE PORTABLE LIGHT CO., INC.
216 William St., New York 7, N. Y.

REKINDLES *from* HOT TOPICS

Ontario Fire Marshal Reports on British Fire Service

Toronto, Ont.
March 29, 1945

Dear Editor:

In the February VF I have been reading with much interest your article entitled "What Would You Tell Our Allies about the American Firemen?," particularly as in November and December last I was on a special mission to Great Britain for the Canadian Government, during which I had an excellent opportunity to view the British National Fire Service from the viewpoint of operating conditions in Canada.

Most of your description of United States fire departments applies equally to Canadian fire departments, although there are a few differences. Very few of our full-time fire brigades are of greater strength than one fireman for each 1,000 population, and in many smaller communities the 500-gallon (U.S.) pumping engine is the most frequent. In Ontario, the granting of one day off in seven, resulting in a 72-hour maximum work week, is compulsory by statute. In British Columbia, the statutory requirement is a maximum 60-hour work week. The 72-hour maximum is common in the other provinces, with a 3-platoon system and a 48-hour week at the option of the municipal authorities. Unfortunately firemen in Canada do not receive as adequate a salary as you indicate for United States, the average for first class firemen in towns and cities being $1,600 to $1,800, although in some of the larger cities, such as Toronto and Montreal, it is as high as $2,600.

Possibly some of your readers would be interested in an expansion of the points which you mention briefly in your head notes with regard to the National Fire Service in Great Britain. Some of these are:

(1) Standardized and compulsory training for both firemen and fire officers was the feature of the British National Fire Service which most impressed me. Every fireman, when first joining, must take a month's intensive training course in all fire department evolutions at a regional training school. This training is standard throughout the entire United Kingdom, not only in its methods, so that all firemen are trained to do things the same way, but it also gives every fireman training in handling all the types of equipment that are to be found in the standard fire stations. In Canada it is very frequent that firemen specialize in such individual phases as ladder trucks, the handling of hose, or pumper operations, but are not conversant with all three. For example, in training which the Fire Marshal's Office handled for one of the Service fire fighting organizations in Canada, it was found that about half of the professional firemen were completely unfamiliar with pumper operations. One feature noted in Great Britain was that much more practising is done with turn-table ladder trucks, which we call aerial trucks on this continent. Another feature of the compulsory training of the British firemen is that every fireman, every year afterwards, must return to the regional training school for a one-week refresher course. This compulsory training is additional to the routine training at the individual fire stations. Efficiency competitions are held between the firemen in various stations and districts, and this does much to stimulate the interest of the men in training.

(2) More important than this training of firemen is the compulsory training of fire officers before they can win promotions. An interesting item is that before candidates for promotion in junior officer ranks start their specialized course, they must all undergo a three-day examination board by psychologists who check most thoroughly the aptitude of the candidates, not only along educational lines and ability to learn but also their qualities for accepting responsibility and leadership. The National Fire College at Saltdean, near Brighton, England, is an institution about which a whole book could be written. At the moment the longest compulsory course for

(*Continued on page 22*)

●

APPARENTLY Willard Hall's story on "Stop That Fire Before It Reaches the road," page 10, March VOLUNTEER FIREMEN, has only served to quicken interest in the problems faced by fire fighters in woods and brush areas. Some of these "rekindlings" are given below. Have other readers suggestions on this important topic?

Dear Kimball:

The set-up of the story is fine and the drawing at the top of page 10 is almost exactly the set-up we used on the fires I was thinking about when I was writing. There was one serious error There are two 2.5-in. lines going into the woods which is bad. We never use more than 1.5 in. lines.

WILLARD B. HALL
Chepachet, R. I.

(*Editor's note:* Of course 2½-in. lines are very difficult to use in the woods and as the various skirmish lines extended into the woods are dependent on a pumper relay supplied by 2½-in. hose it is necessary to use small size nozzle tips in order not to deplete the water supply.)

Dear Editor:

Just a word to express appreciation of the article in the last issue by Mr. Hall, also your illustrations. We would like to see more articles on "woods fires" in future issues.

Very truly yours,
WILLIAM M. WADE, *Chief Engineer*
Westfield State Sanatorium
Westfield, Mass.

Dear Editor:

I was very much interested, when I read the story in the March issue of VOLUNTEER FIREMEN entitled Stop That Fire, until I discovered that nothing was said about the possibility of using a back fire.

From the picture on page eleven, there seemed to be very little air stirring, and I would expect that a back fire would have saved stretching so much hose and equipment.

Water is a very convenient tool, when handy, however a lot of communities in our state lack the necessary equipment to haul or even relay water over any great distances and in our community we have been forced to haul water five miles to get it to the fire.

I would certainly like to have some one who has had experience with back fires give this subject a good write-up in VOLUNTEER FIREMEN.

Very truly yours,
LEROY P. MANSFIELD
Chief Engineer
Wolfeboro Fire District
Wolfeboro, N. H.

Champion Owners Say: "All You Claim For It and More!"

LET THE PROVED SATISFACTION OF OTHER CHIEFS HELP YOU SELECT A CHAMPION

INTERNATIONAL CHASSIS **With S500 Two Stage Pump $2035 (Basic Equipment) Built on Your Chassis**

DORRIS, CALIFORNIA

The pumper capacity so far exceeded our expectation that we are placing double 2½" discharges on pumper and 3½" suction. We pumped to one fire outside City limits of Dorris through 800 feet of 2½" hose, then siamesed to a total distance of 950 feet with 50 feet additional to work with on each 1½" line for a period of 1 hour and never heated any part of the equipment.

W. P. SHERMAN, *Secy.-Treas.*, Fire Dept.

DURYEA, PENNSYLVANIA

I might say at this time that the truck we purchased from you people has certainly lived up to specifications.

We have answered a countless number of serious alarms both in Duryea and in neighboring towns and cities which are heavily populated.

We have competed with other pumpers costing 4 times the price of what we paid for ours and have outpumped and outdistanced them.

Sincerely yours,
R. E. NALLY, *Secy.*, Excelsior Hose Co. No. 2.

BERNICE, LOUISIANA

We are pleased to enclose voucher-check in payment for Fire Truck and equipment delivered under your contract with us.

The officials and taxpayers of our town were agreeably surprised with what you delivered us. And as for myself, I feel fully repaid for the care and trouble I went to in getting value for the tax dollar. Your cooperation proved valuable, for which I wish to express thanks.

Yours very truly,
J. M. TALBOT, *Mayor.*

CAPE GIRARDEAU, MISSOURI

I feel justified in writing you a few words of praise of our Centrifugal Champion Pump which was purchased from you. This pump was used at a drug store fire in our downtown area and did everything that you stated it would.

Sincerely yours,
CARL LEWIS, *Fire Chief.*

W. S. DARLEY & CO.

CHICAGO 12, ILLINOIS

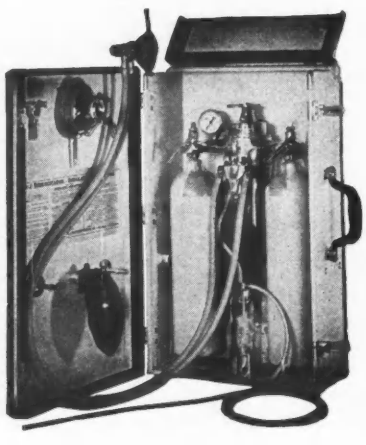
100 PAGE CATALOG OF FIRE EQUIPMENT

FIRE TRUCKS — HIGH PRESSURE FOG PUMPS — STANDARD FIRE PUMPS
SKID PUMPERS — PORTABLE PUMPERS

Request Your Catalog Today!

"EVERYTHING FOR FIRE DEPARTMENTS"

E & J RESUSCITATORS OFFER IMPORTANT ADVANTAGES



These outstanding life saving instruments are specially designed to incorporate vital features not found in any other equipment.

18 YEARS OF SUPERIOR PERFORMANCE

In construction, range of use and in the record of lives saved, E & J Resuscitators have maintained their leadership for eighteen years. That is why there are so many more of these units purchased than all others combined. E & J engineers offer in their new 1945 models their greatest contribution to life saving .

YOUR RESCUE SERVICE IS NOT COMPLETE WITHOUT MECHANICAL RESUSCITATION—AND THIS MEANS "E & J" IF YOU WANT THE BEST

E & J MANUFACTURING CO.
GLENDALE, CALIFORNIA
Pioneers and Specialists in Mechanical Artificial Respiration

Drexel Bldg. Philadelphia
17 E. 42nd St. New York
2144 N. Springfield Ave. Chicago
581 Boylston St. Boston
530 Fernando St Pittsburgh
3032 W. 25th Ave. Denver
3900 Grandy Ave. Detroit
5005 Euclid Ave. Cleveland

Women Wage War on Fire

(*Continued from page 14*)

the clean-up campaigns and fire prevention week programs with community drives, and by cooperating with the schools, educate the children in fire prevention.

Where there is a local safety council, it would be beneficial to the entire community if the auxiliary organization and the council could work together in a program against both fire and accident hazards.

The basic principles of fire prevention and fire protection remain the same, but new problems, as well as new techniques and equipment, are always presenting themselves. It is wise, therefore, to keep abreast of the latest news from the fire front. One of the best ways to do this is to read the publications of the National Fire Protection Association, their special books and pamphlets, as well as those issued periodically, such as the *News Letter*, the *Quarterly*, and your VOLUNTEER FIREMEN. Ask your chief to share the N.F.P.A. literature with your women's organization.

The women's auxiliary organization, working with the volunteer fire department, is a step in the right direction, to bring fire protection and prevention education into practical application.

Egyptian Theatre Blaze

(*Continued from page 11*)

heavy loss of life had the theatre been full at the time of the fire.

In a theatre with provision for lifting scenery, the proscenium opening should be protected by a standard asbestos fire curtain and all other openings in proscenium wall should be provided with standard fire doors. The stage section should be protected by automatic sprinklers.

All persons working around a theatre should be familiarized with the location and operation of first aid fire extinguishing devices.

It is said a larger complement of paid firemen would have been of tremendous advantage in combating this fire in its early stages. A 2½-inch line taken immediately to the stage might have minimized the loss, which totaled approximately $90,000.

Minneapolis Drill Team Competitions

(*Continued from page 7*)

The time will be taken from the command "go" until the water shows at both nozzles.

After completion of the evolution, close the shut-off valves on the nozzles; do not shut off the hydrant. The hose lines will be left in this condition under pressure for Evolution No. 2.

2. Making Improvised Cellar Nozzle.

Use the same company. Total men, 6. Place 2 men at each nozzle in positions held at conclusion of Evolution No. 1. The captain and one man will be stationed at a point near the hose truck.

Upon the command "go" by the captain, both nozzles will be opened and one of the lines shut off by means of a hose clamp and converted into an improvised cellar pipe by properly securing the line to

a 12- or 14-foot roof ladder with ¾-inch rope and tied so as to serve as a control for the nozzle in directing the stream.

The roof ladder, coil of rope and hose clamp will be in the usual positions on the truck at the start of this evolution. In the absence of a basement window or basement stairway, a platform of convenient size properly supported and elevated 4 to 6 feet above ground will be used in the performance of this evolution. At the start of this evolution, the line will be so placed that either the basement window, if used, or the platform will be near the line and about 25 feet back from the nozzle.

At the end of this evolution, 2 men will be directing the stream from the line and nozzle which has remained in the same position throughout this evolution, and 2 men will be operating the improvised cellar pipe from the platform.

The time will be taken from the command "go" until water shows at the cellar pipe nozzle. After time has been taken, the captain will direct the 2 men on the cellar pipe to demonstrate to the judges the various stream directions that the improvised cellar pipe will furnish.

The line to the cellar pipe will then be shut off by hose clamp and the shut-off nozzle on the other line will be closed. The hydrant will remain open and the 2 lines kept under pressure for Evolution No. 3.

3. Combination Evolution — *Involving operation of improvised cellar pipe; stretching two 1½-inch lines, one on the ground and one to the second floor of the 2-story building (or the roof of a 1-story building) and climbing to the second floor (or roof) with 5-gallon pump tank and axe.*

Before starting this evolution, 2 men will remove the 24- or 30-foot extension ladder from the truck and place it for climbing to the second floor window (or roof). ***This will not be done under time,*** although the judges will observe the carry and raising performance and will examine the final setting and invoke penalties if necessary for improper performance and setting. Any corrections required in the setting will be supervised by the judges for safety in climbing.

Before commencing this evolution, place 2 men at the improvised cellar pipe, one man at hose clamp on cellar pipe line, and the other 3 men at a designated point near the truck.

Upon the command "go" by the captain, the hose clamp will be removed from the cellar pipe line and used to shut off the other line after the nozzle is opened. The nozzle will be replaced by the wye (2½-inch female by 1½-inch gated male by 1½-inch gated male) and two 100-foot lines of 1½-inch hose with nozzles will be connected. (The two 100-foot lines of 1½-inch hose with nozzles attached will be in folded bundles on the ground near the truck.) One 1½-inch line will be laid to a designated point near the building with nozzle remaining shut off during the entire evolution but ready for service, the other 1½-inch line will be stretched by means of the ladder to the second floor (or roof) of the building and a designated 5-gallon pump tank and a designated axe, both from the truck, will also be carried by 2 men to the second floor (or roof). A stream will be directed from the 1½-inch line nozzle on the second floor (or roof) through a window or over a point designated by the judges.

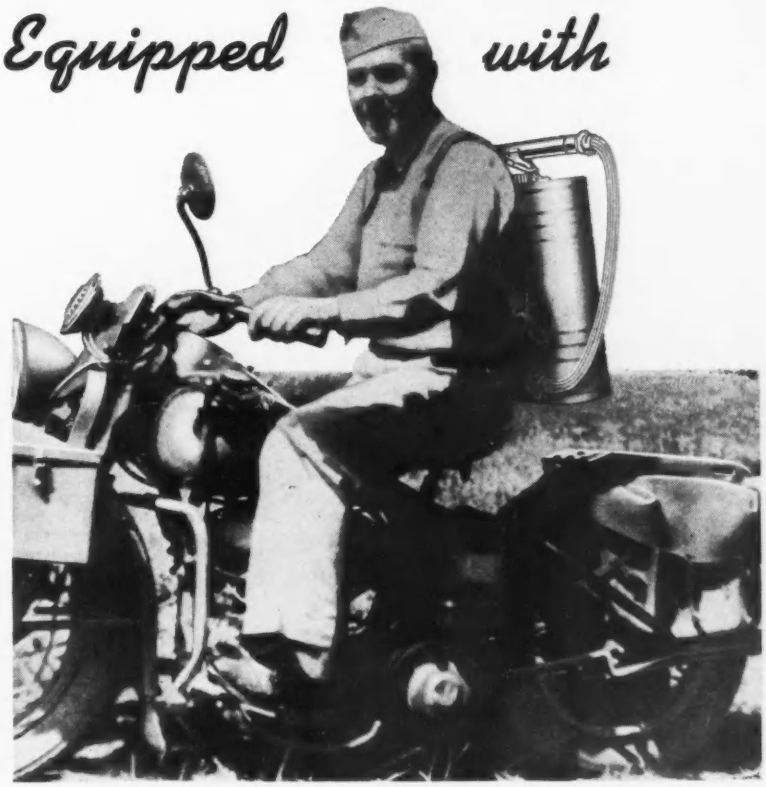
Time will be taken from the command of "go" until water shows at the nozzle on the second floor (or roof), or until both men with pump tank and axe reach the floor inside the second floor (or deck of the roof) whichever occurs last. The improvised cellar nozzle will be kept in operation during the entire evolution by the 2 men originally assigned to it.

At the completion of this evolution, there will be 2 men at the improvised cellar pipe with stream going. On the second floor (or roof) of the 1-story building will be one man directing the stream from the 1½-inch line, one man with the 5-gallon pump tank and one man with the axe. The sixth man, who has operated the hose clamp during the evolution, will be on the ground in readiness to use the other 1½-inch line, if needed, either into the basement or onto the first floor.

After completion of this evolution, all hose, nozzles, the 2 ladders, pump tank, axe, wye, hose clamp, and all other equipment will be returned to the original positions and places.

Solve Your Grass Fire Problem with a Motor Cycle Patrol

Equipped with



INDIAN FIRE PUMPS

Pressure stream from an **INDIAN FIRE PUMP** drives hard into every nook and cranny —smashes fire out completely before it gets beyond control.

A man patrolling with an **INDIAN FIRE PUMP** on a radio-equipped motorcycle is all set to get to the trouble fast and put the blaze out in a hurry! Strapped on the back, the big 5-gallon rustproof tank leaves arms free. This is just another way these hard hitting, clear water extinguishers knock out grass, rubbish, and Class "A" fires before they spread.

Now is the time to equip your department with famous **INDIAN FIRE PUMPS** — the portable, speedy fire fighters which have won the praise of all who use them. *Write for catalog.*

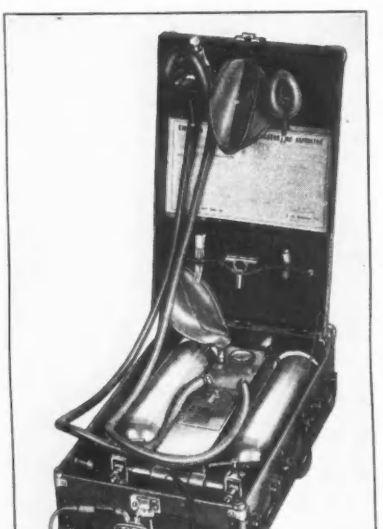
D. B. SMITH & CO., 411 Main St., UTICA, N.Y.

Pacific Coast Branches:
Hercules Equipment & Rubber Co., 435 Brannan St., San Francisco, Cal.
Roy G. Davis Co., 647 East Third Street, Los Angeles 13, California
Mill & Mine Supply Co., 2700 4th Avenue, South Seattle, Washington
Carco-Conwhit Co., 526 NW Pine Street, Portland 4, Oregon
The Conwhit Co., Klamath Falls, Oregon

Asphyxia Could Strike On Your Next Alarm!

You never know when smoke suffocation, gas poisoning, electric shock, drowning or other asphyxia is going to threaten the life of your firemen or your citizens. When it does, be ready with an

EMERSON RESUSCITATOR



By its performance in the hands of leading fire departments the country over, Emerson has come to be our Number 1 resuscitator.

J. H. EMERSON CO.
24 Cottage Park Ave., Cambridge, Mass.
Representatives in Principal Cities

Ontario Fire Marshal Reports on British Fire Service

(Continued from page 18)

fire protection officers is five and a half months, but under discussion in postwar plans is a 2-year course which would have to be successfully taken by anyone seeking appointment to a rank roughly similar to that of a chief of a city of 100,000 population. When waterworks engineers, for example, have to take a university course before qualifying, it does not seem unreasonable to require a 2-year special course for a man with the responsibilities of a fire chief of a large city. Courses at present given to officers at the National Fire Service College at Saltdean are:

(*a*) Course for Column Officers and Divisional Officers, 1 month; (*b*)Course for the Best of the Younger Operational Officers, 3 months; (*c*) Course for Young Officers Training as Fire Protection Officers, 5½ months; (*d*) Course for Officers-in-Charge of Stations, 2 months; and (*e*) Discussion Course for Chief Regional Fire Officers and Fire Commanders, 1 week.

(3) British salaries for fire officers and firemen appear lower than are prevalent on this continent, but in almost all cases there are various living allowances given in Britain which greatly reduce this difference. Not only do stations frequently contain apartments for families of personnel, but in other cases quarters for a fireman and his family are found in buildings and houses near to the fire station. As part payment for his services, the fireman receives a free house, free fuel and free food for himself and his family. The war has brought quite a few changes in this general system, particularly when firemen are posted to other districts than where they have their houses. Most stations provide for all personnel receiving their meals at the station, not just our system here of lunches being brought in and one of the members of the brigade acting as volunteer cook, but a regular fire station mess with personnel hired as waiters, etc.

(4) In your mention of fire apparatus, you omit what to most people from the American continent is the most unique feature of British fire equipment, namely the "escape," which is a manually-operated aerial ladder made mobile by two very large wooden wheels. This escape equipment, riding on the back of the fire truck, has a peculiar appearance to strangers. The other piece of apparatus that looks peculiar to Canadian eyes is the "turn table" or aerial ladder truck. In the British design the base of the ladder is at the rear of the apparatus, with the sections projecting up over the driver's cab and the engine hood. Not being an aerial ladder operator myself, I cannot give any personal views, but Canadian firemen who have used the British type are unanimous in their praise of its ease of handling. The bulk of the fire apparatus in most British stations is of the temporary wartime type of small truck built to carry hose and personnel and to tow a trailer pump at the rear. Some regular fire apparatus is being built in recent months, but I have no information as to design trends except that the only new fire pumpers I saw were fully enclosed, not only for the driver but also for all personnel and the hose body.

The postwar future of the nationalized fire service in Great Britain has not been decided as yet, but I think that some, at any rate, of the features of national control, *e.g.*, standardization of training, conditions of service, and equipment, are most likely to remain. From the viewpoint of the individual in the British National Fire Service, probably the biggest feature of all was that no matter in what small hamlet he first started as a fireman he had the opportunity, by hard work and ability, to be the chief officer in the largest city in Britain, and his promotions en route did not depend on seniority.

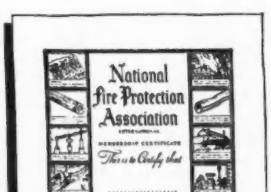
Yours very truly,
W. J. Scott, K.C.,
Fire Marshal, Province of Ontario.

•

MEMBERSHIP REPORT

THE May membership lists in the N.F.P.A. Volunteer Firemen's Section showed 18 new company members with a total of 228 men. The new companies are listed below:

Citizen's Hose Co., Smyrna, Del.
Libertyville Fire Dept., Libertyville, Ill.
Independence Hill Volunteer Fire Dept., Crown Point, Ind.
Goodland Fire Dept., Goodland, Ind.
Dunlap Fire Dept., Dunlap, Iowa
Earlville Fire Dept., Earlville, Iowa
Jesup Fire Dept., Jesup, Iowa
Spencer Volunteer Fire Dept., Spencer, Iowa
West Annapolis Fire & Improvement Co., West Annapolis, Md.
Bay Head Fire Co., Bay Head, N, J.
Cody Volunteer Fire Co., Fulton, N. Y.
Deluge Hose Co. No. 1, Newark, N Y.
Owasco Fire Dept., Auburn, N. Y.
Star Lake Volunteer Fire Dept., Star Lake, N. Y.
Friendship Fire Co. No. 1, Elizabethtown, Pa.
Innes Hose Co., Canton, Pa.
Reliance Fire Co. No. 1, West York, Pa.
West Earl Fire Co., Braunstaun, Pa.



MEMBERSHIP PLAN

Through the Volunteer Firemen's Section, fire companies may become members of the National Fire Protection Association. As a member fire company, the department receives at headquarters a set of all regular N.F.P.A. publications. This includes the Quarterly, the monthly News Letter, posters and bulletins.

Each member fire company has the Volunteer Firemen magazine sent to the homes of ten men at no extra charge beyond the ten dollars annual dues paid by all associate members of the N.F.P.A. All other N.F.P.A. members pay ten dollars without the ten copies of Volunteer Firemen.

If more than ten firemen want to receive Volunteer Firemen, an additional dollar should be sent for each extra fireman listed to receive the magazine. Individual subscriptions are not accepted from departments not members of the N.F.P.A.

"Serving for Us"

CHIEF HARRY H. LEAVY of the Stanhope, New Jersey, Hose Company, No. 1 (member of the N.F.P.A.), reports that his company has lost 17 of their 35 fire fighters to the military services. To honor the men who are now serving their country, Chief Leavy wrote, "Just recently I had made up a memorial to the boys in the service. We used a black walnut base. Then I mounted the old fire bell off our 1917 Maxwell combination truck, putting in three lights, red-white-blue, using the bell as a lamp shade. A bronze plate under the bell has all the names of men in the service with a title, 'Serving for Us.' "

Volunteer Firemen Rate Gasoline

A RECENT newspaper release stated that volunteer workers would be denied gasoline for volunteer service. Accordingly, the Editor, in the interest of the volunteer firemen, contacted Mr. Q. W. Regestein, Chief of the Gasoline Rationing Branch in Washington. Mr. Regestein sent the following assurance that the status of the volunteer firemen would not be affected.

"We believe that you have reference to Amendment No. 178 to Ration Order No. 5C, a copy of which we are attaching for your information. It would appear that members of volunteer fire departments serving local communities are covered under Section 1394.7551 (a) (26) (ii), as marked, insofar as 'B' rations are concerned. 'Work which is regularly performed under the direction of a government or governmental agency and which contributes to the war effort or the general welfare.' In addition, the Gasoline Rationing Regulations under Section 1394.7706 (x) (4) make provision for the issuance of rations beyond the 'B' ceiling, where necessary, for volunteer firemen.

"We fully realize the importance of volunteer firemen, and believe the above cited provisions adequately cover all of their gasoline requirements. There has been no change in requirements or provisions for this work."

FEDERAL ELECTRIC COMPANY, INC.
SIREN HEADQUARTERS

How
POWER
is built into this
FEDERAL
***Traffik-King* SIREN**

Oscillating Red Light;
Single or Double Tone; Coaster Model

The tremendously powerful tone of Federal Traffik-King sirens demands attention over other traffic noises, clears the way. This model has a distinctive double tone; and it coasts almost two minutes after current is off. Special clutch mechanism releases rotor; coasts much longer than so-called "long roll" types, which seldom roll over 30 seconds. Electric solenoid brake on rotor stops sound instantly. Durably built for long, dependable, maintenance-free service.

Rotors: cast aluminum, precision-machined, individually balanced. Thin, smooth blades for high efficiency.

Parts in rotor and stator accurately spaced, finished to square sharp edge; assure true pitch, powerful tone.

Motors: heavy duty; bronze or ball bearing; 6 or 12 volts.

GET THIS BOOK FREE!
Details, illustrations, and prices on this and other Federal sirens and horns. Write today:
FEDERAL ELECTRIC COMPANY, INC.

8717 SOUTH STATE ST., CHICAGO 19, ILL.

Midwestern Combination Suit

Rubber or Canvas
Standard in many Municipal Dept's
All Over America

You can buy either the coat or the pants separately or together. The coat is a highly serviceable garment as a result of rugged and superior quality throughout. Flexible elastic inner sleeve for wrist. Adjustable collar strap, detachable wool lining, Midwestern safety snaps, 2 outside pockets, 6-inch storm flap, and many other good features.

Bunker Pants

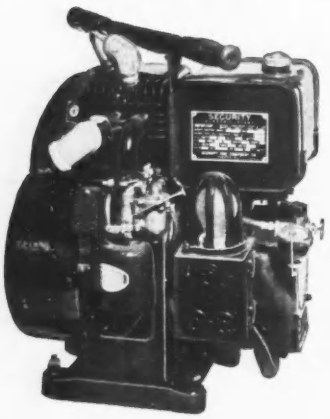
- Lining held by snap buttons
- Eight suspender buttons
- Safety snap on belt
- Wool Lining
- Reinforced adjustable belt
- Wide protecting flap
- Reinforced by rivets

Regular Fireman's Boots Available ¾ length, reinforced instep, felt linings. New synthetic rubber, not reclaimed. Write.

See your local Midwestern distributor for prices and literature, or write the factory.

MIDWESTERN
MANUFACTURING CO.
MACKINAW, ILLINOIS

PORTABLE
FLOODLIGHTING GENERATING PLANT



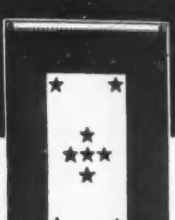
This 1500 watt portable generator, with 25% reserve, especially designed for fire department service. Lightweight, rugged and compact. Air-cooled 4-cycle engine 2¾" bore x 2¾" stroke. Quick starting. Fully guaranteed, thoroughly dependable.

Also from 600 to 2500 Watts in A.C. and D.C.

Write for Catalog

SECURITY FIRE EQUIPMENT CO.
1550 Princeton Ave. Trenton, N. J.

HONOR YOUR SERVICE MEN



Blue stars, white panel, field of red. Send for catalogue.

Honor your fellow-firemen now serving with the armed forces, by displaying this official

SERVICE FLAG

One star for each one in service. Available in any size or material desired. Send for Free illustrated catalogue and price list today.

Permanent
ROLL of HONOR

A permanent plaque, with individual names in silver on gold-bordered permanent name plates. Beautiful walnut plaque with eagle and victory torches. Write for price list today.

U. S. and Allied Flags in all sizes. Write for prices.

REGALIA MFG. CO.
Dept. 82, Rock Island, Ill.

MANUFACTURERS' ANNOUNCEMENTS

New Branch Opened by General Detroit

THE General Detroit Corp. announces the opening of a new branch office and warehouse at Dallas, Texas. S. M. Luce has been appointed Division Manager in charge of this office. The Dallas branch will handle distribution of General Detroit products in the South and Southwest. This supplements the Corporation's other branches located in New York, Chicago, Washington, Boston, Los Angeles, San Francisco, and Seattle. General Detroit products are also distributed through 22,000 local outlets in all parts of the country.

Chemical Fire Extinguisher Assn. Officers Re-elected

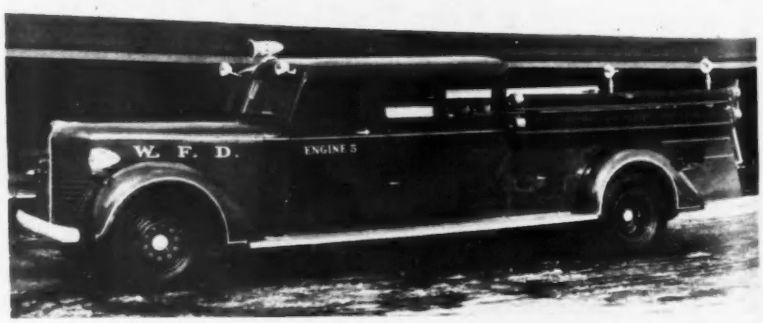
THE Chemical Fire Extinguisher Assn. at its recent annual meeting held in Chicago, re-elected the following officers: *President*, Arthur G. Sullivan, Vice Pres. Buffalo Fire Appliance Corp.; *Vice President*, J. O. Binford, General Sales Mgr., American-LaFrance-Foamite Corp.; *Treasurer*, H. W. Diener, Secy., Geo. W. Diener Manufacturing Co.; and *Commissioner*, W. J. Parker of New York. Directors re-elected are Geo. H. Boucher, General Sales Mgr., Pyrene Manufacturing Co.; and E.A. Warren, Vice Pres., General Detroit Corp.

Kidde & Co. Receives Army-Navy "E"

WALTER KIDDE & CO., INC., received the Army-Navy "E" award on Saturday, April 7, at its main plant in Belleville, N. J. The award is in recognition of the company's production of not only carbon dioxide fire extinguishing equipment but also a wide variety of compressed gas cylinders, valves, and actuators for military purposes.

New Buffalo Pumper for Worcester, Mass.

THE Fire Department of Worcester, Massachusetts, has recently accepted delivery of the new Buffalo 1,000-gallon Triple Combination illustrated below. Of special interest is the built-in canopy all-steel cab. The driver's compartment seats three or four men in a seat 68 inches in width and a second seat of the same width faces the rear and is accessible through an aisle in the hose body. The fire pump is located in between the seat backs with booster tank above the pump. This modern piece of motor fire apparatus was designed and built by the Buffalo Fire Appliance Corporation, Buffalo, New York.



INDEX TO ADVERTISERS

	Page
American District Telegraph Co.	15
Cardox Corp.	2
The Circul-air Corp.	16
W. S. Darley & Co.	19
E. & J. Manufacturing Co.	20
J. H. Emerson Co.	22
Federal Electric Co., Inc.	23
Four Wheel Drive Auto Co.	4
The Fyr Fyter Co.	18
General Detroit Corp.	27
Grinnell Co., Inc.	3
The Hardie Manufacturing Co.	17
Walter Kidde & Co., Inc.	2
Midwestern Manufacturing Co.	23
Mine Safety Appliances Co.	13
National Fire Protection Ass'n.	16
National Foam System, Inc.	26
The Portable Light Co., Inc.	18
Regalia Manufacturing Co.	24
Security Fire Equipment Co.	24
D. B. Smith & Co.	21
Ward LaFrance Truck Division	28

When you write to advertisers, please mention VOLUNTEER FIREMEN

FOR SALE

Darley Champion 200-g.p.m. skid-mounted portable fire pump powered by Hercules 4-cylinder motor. Can be carried by two men! For details write Chief Edgar A. Spotz, Hummelstown, Pa.

DETROIT CITY AIRPORT
Protects Its Operations

Looking toward the post-war years . . . when expanding civilian air traffic will make adequate crash fire protection a "must" . . . Detroit City Airport has met the challenge with this big-capacity, fast-acting Cardox Airport Fire Truck.

This truck . . . the first of its kind to be made available to a civilian airport . . . is a highly specialized fire-fighting unit, based upon experience gained in producing hundreds of Cardox Airport Fire Trucks for military bases in the United States and abroad.

Self-contained . . . highly mobile . . . geared for easy maneuverability . . . it packs the terrific wallop needed to knock out crash fires fast and make possible speedy rescue of plane personnel. *Two tons* of liquid CO_2 can be released onto the fire zone in approximately one minute, if necessary. Backing up this big supply of zero-cold, fast-acting carbon dioxide is 220 gallons of foam solution . . . which blankets exposed gasoline and hot metal surfaces during and after extinguishment to prevent possible reignition.

Overwhelms Vicious Crash Fires With Amazing Speed

Cardox Airport Fire Trucks are the only mobile units which combine the two fast, efficient extinguishing mediums in these large quantities to conquer the vicious fires that can result when a big plane crashes. Crash fires involving heavy bombers, frequently carrying thousands of gallons of aviation gasoline, have been literally overwhelmed by this "mass attack" . . . permitting rescue of personnel in *seconds* after the Cardox Truck reached the scene of the crash.

Pictures shown above were taken during demonstration held at the Detroit City Airport. Small picture at left shows fire at its height. Center picture shows the beginning of the attack by the Cardox Truck, discharging CO_2 at the rate of approximately 4000 pounds a minute. Picture at right—*made 30 seconds after extinguishment was begun*—shows all fire extinguished.

New Bulletin Gives Full Facts

Airport authorities facing the problem of adequate fire protection for present and post-war operations should get full details on design, operation and performance records of Cardox Airport Fire Trucks. Write today for Bulletin No. 355.

CARDOX CORPORATION
BELL BUILDING • CHICAGO 1, ILLINOIS
District Offices in New York • Washington
Detroit • Cleveland • Atlanta • Pittsburgh
San Francisco • Los Angeles • Seattle

CARDOX
CO_2 FIRE EXTINGUISHING SYSTEMS

NATIONAL FOAM

Blankets and Effectively Extinguishes

Oil, Tar, Gasoline and most Chemical Fires

These tar and chemical plant buildings were dependent on water for fire protection.

A gastight foam blanket is the surest and quickest way to deprive a fire of oxygen without which it cannot persist.

All foams are not equally effective fire extinguishers. The basic material that makes National Foam more effective is derived from Soy beans —that's why the Navy call it "Bean Soup." National Foam bubbles are tough, cohesive and adhesive. National Foam quickly produces a thick gastight blanket which smothers the fire, cools the surface and prevents flashbacks.

National Foam proved its efficiency the hard way, conquering first the toughest and most hazardous field — oil and gasoline fires. The success of Foam in this field was so outstanding and efficient that until recently almost the entire output and attention of the National Foam System was devoted to this phase of fire extinguishing.

The U. S. Navy have installed foam fire fighting equipment on all their ships, for protection against oil, gasoline and other hard-to-control fires. Until recently, the Navy have required the entire output of Aer-O-Foam. A limited amount can now be offered for civilian use.

National Foam System provides both portable and stationary units. No extensive or complicated installations are required to produce National Foam *in volume.*

Our engineers will gladly consult with you and recommend the Foam and Equipment best suited to your needs.

IN FIRE DEPARTMENT SERVICE

National Foam System has equipment especially designed for use of Fire Departments to meet all types of foam fire fighting requirements.

BACK THE ATTACK—BUY WAR BONDS

NATIONAL FOAM SYSTEM, INC.

Specializing in Foam Fire Protection

Packard Building. Philadelphia 2. Pa.

Would You have your Tonsils Removed by a Barber?

In the old days barbers doubled as surgeons, and the striped barber pole represented the blood that flowed in their surgical calling. Today the barber and the surgeon each is a specialist. *Each does his own job best.*

The same is true of fire extinguishers. No *one* extinguisher is right for *every* fire hazard. By manufacturing a complete line of extinguishers—including vaporizing liquid, carbon dioxide, soda acid, pump, and foam types—General has earned the title of "Fire Protectioneers" to industry.

Alaskan 2½-Gallon Pump Type Extinguisher is especially designed for use on fires in wood, paper, rubbish, textiles, and similar materials. Write for details.

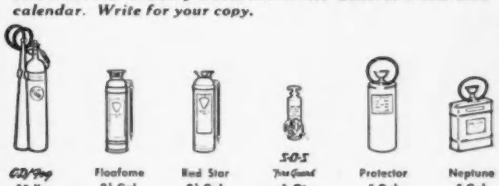
FREE: Norman Rockwell's painting of the Great Chicago Fire and Mrs. O'Leary's cow illustrates General's new wall calendar. Write for your copy.

Main Offices and Factories, Detroit

The General Pacific Corp. Los Angeles

IF IT'S GENERAL IT'S DEPENDABLE

C-D/Fog Division, Hamtramck



Let General Protectioneers prescribe the *right* extinguisher for your every fire hazard.

THE GENERAL DETROIT CORP.

2270 E. JEFFERSON AVE., DETROIT 7, MICH.

Distributors in principal cities

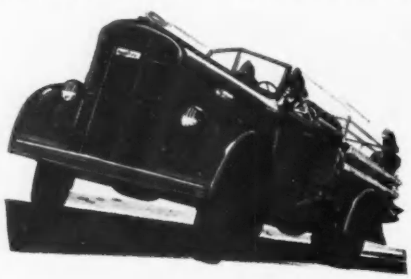
CHICAGO DALLAS NEW YORK

West Coast Affiliate: The General Pacific Corp.

Seattle • LOS ANGELES • San Francisco

ARE YOU READY FOR A BIG ONE?

Because most conflagrations are small at the start, speed in getting to the scene and into action ranks first in importance. Ward LaFrance pumpers are first in ability to do just that . . . But it's the *big* fire that costs big money, and when one breaks out, *stamina* is what counts . . . A recent fire in an eastern city cost $275,000, due in good part to the fact that three pumpers broke down. Ward LaFrance pumpers "get there fast" and *stay on the job* . . . WARD LA FRANCE has meant absolute dependability to fire fighters for twenty-five years. Today Ward LaFrance pumpers are the choice of our largest American cities, as well as small towns. Why not write our Sales Department today, outlining the needs of your community?



WARD LAFRANCE

TRUCK DIVISION

GREAT AMERICAN INDUSTRIES, INC.

ELMIRA, NEW YORK